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THE EFFECT OF RANDOM VARIATIONS OF RADIOSONDE DATA ON THE PREDICTED FLIR PERFORMANCE CALCULATED BY THE PROGRAM UFLR

by

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September 1989

Thesis Advisor: Edmund A. Milne

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The Effect of Random Variations of Radiosonde Data on the Predicted FLIR Performance Calculated by the Program UFLR

by

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN SYSTEMS ENGINEERING
(ELECTRONIC WARFARE)

from the

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September 1989

ABSTRACT

The lack of correlation between the airborne Forward Looking Infrared Detector predicted performance by the program UFLR and the actual performance due to meteorological fluctuations was examined. Calculated performances for the detection, classification and identification of four surface targets using actual radiosonde profiles were compared to the performances obtained using radiosonde data affected by random atmospheric variations of pressure, temperature and relative humidity. A total of 192 performances were created using this method. A visual display and a statistical analysis of the actual and simulated performances was performed. Error margins were determined in the predicted detection ranges for height levels of 1,500 ft., 5,000 ft. and 10,000 ft.. It was also determined that the FLIR performance may be degraded up to 10 nautical miles for a height level of 5,000 ft., and up to 12 nautical miles for a height level of 10,000 ft. due to the random atmospheric variations.

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I. INTRODUCTION

In the recent years, Naval surveillance has been improved by the use of airborne threat warning receivers employing scanned IR detectors for purposes of military intelligence, maritime traffic control, to watch illegal activities, and for the prevention of oil pollution on the sea. IR reconnaissance overcomes the limitation of sensors in the visible spectrum being usable only during daylight hours. The advances in microprocessors and support components, together with new methods of signal and data processing have allowed the realization of reliable IR systems. The practicality of such systems is supported by the well developed sensor technology acquired by the Forward Looking IR Receiver (FLIR) system.

With present technology, a FLIR system may be designed and evaluated using computer aids. The system performance may be modeled and tested giving an output in a form which can be directly related to the requirements. Unfortunately, due to the complex nature of the atmosphere, the result of this modelling may often be in error. In general, the performance of an electro-optical system is degraded and often limited by atmospheric propagation effects such as absorption and scattering due to atmospheric gases, particles and hydrometeors or atmospheric turbulence.

As part of the IR system design activity, it is necessary to run trials in order to achieve the performance requirements. Over the past several years, various FLIR performance prediction codes have been developed by the Naval Ocean Systems Center and later revised by the Naval Environmental Prediction Research Facility and also by a group at the Naval Postgraduate School. As a result, it was found that the correlation between the predicted and the actual performance has been poor at best, presumably because of meteorological fluctuations in both time and position.

The objective of this research is the comparison of the predicted FLIR performance calculated by the program UFLR for different radiosonde profiles affected by random atmospheric variations.

The complete process includes three stages:

- The generation of simulated radiosonde data representing random atmospheric variations performed by the computer program UFLRATM. Radiosonde profiles for height levels from 0 to 28,000 feet were dithered about the actual values of the pressure (millibars), temperature (degrees) and relative humidity (percent), multiplied by a Gaussian random number generator (0,1), as shown:

```
PRES =      PR + SIGMAP * R

TEMP =      TE + SIGMAT * R

RELH =      RE + SIGMARH * R
```

where:

PRES = dithered pressure at a specific elevation.

TEMP = dithered temperature at a specific elevation.

RELH = dithered relative humidity at a specific elevation.

SIGMAP = estimated standard deviation of the pressures in radiosonde measurements for a given elevation.

SIGMAT = estimated standard deviation of the temperatures in radiosonde measurements for a given elevation.

SIGMARH = estimated standard deviation of the relative humidities in radiosonde measurements for a given elevation.

R = Gaussian variant.

The created environmental profiles serve as the input to the UFLR program.

- The use of the computer program UFLR to provide a capability to assess the effects that environmental conditions have on the propagation of IR radiation from a target and the display of these effects in terms of a range at which a FLIR system could detect that target with a 50% probability at a specified flight altitude. The different input atmospheric profiles will give different predicted performance values for the same target. Up to four target parameters will be processed at the same time.

- Further work is continuing into the analysis of the variance of the predicted performance compared to the variance of the measured performance. Visual information of these is provided by the plot of the UFLR program output, using the computer program UFLRPLT.

II. THEORY SECTION

A. FLIR FUNDAMENTALS

1. General

When early airborne thermal imaging systems were pointed down to the sea surface and used to view objects in the near horizontal plane, the term FLIR or Forward Looking Infrared was introduced. FLIRs operate in the 3-5 and 8-14 micrometer wavelength ranges, and achieve the detection of the radiance distribution of a scene under observation by scanning the field of view. A typical FLIR system block diagram is shown in Figure 2.1.

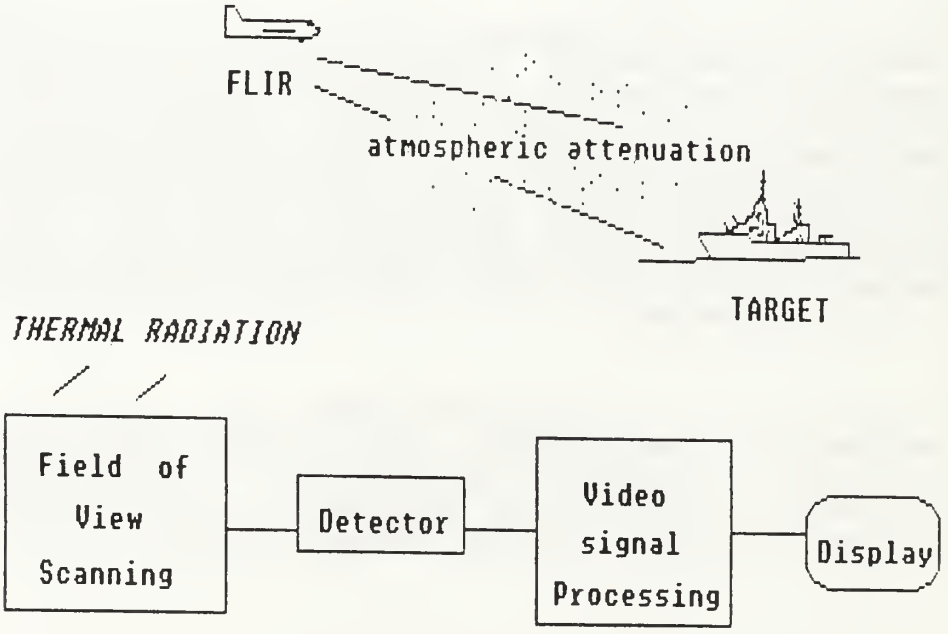


Figure 2.1. FLIR System Block Diagram

The incident electromagnetic field from the scene produces a disturbance within the detector proportional to the energy transported by the field. The electromagnetic field is converted to an electrical signal by the FLIR system and then processed for a video display. The detector is characterized by two parameters: the Responsivity (R), which is the gain of the detector expressed in volts of output signal per watt of input signal; and the specific Detectivity (D) which is the detector output signal-to-noise ratio for one watt of input signal, normalized to a unit sensitive detector area and a unit electrical bandwidth. [Ref. 1]

$$R = V_s / (H * A_d) \qquad \text{(volt/watt)}$$

$$D = (R / V_n) (A_d \Delta\nu)^{1/2}$$

where:

V_s = detector signal voltage

H = distribution of irradiance on the detector

A_d = detector area

V_n = rms noise voltage in the detector bandwidth

$\Delta\nu$ = detector bandwidth

The radiation received from a target is compared with that of an equivalent area of the background. The detectability of that target by a FLIR is determined by the distribution of temperature over its surface in contrast with the temperature distribution of the background.

2. Minimum Detectable Temperature Difference

The minimum detectable target-to-background temperature difference indicates the FLIR performance. This is often referred to as the Minimum Detectable Temperature Difference (MDTD). For the calculation of a detection range, it is necessary to know the MDTD of the FLIR system as a function of range.

For a target assumed as a square against a large uniform background, the average signal-to-rms noise ratio per frame per line in the image is: [Ref. 1]

$$SNR = \frac{\overline{I(X,Y)}\,\Delta T}{NETD\left[\frac{\text{Displayed Noise Bandwidth}}{\text{Equivalent Filter Noise Bandwidth}}\right]^{1/2}}$$

where:

$\overline{I(X,Y)}$ = image of the square target normalized to unity amplitude

ΔT = target-to-background temperature difference = $T_t - T_B$

NETD = Noise equivalent temperature difference, which is the ability of the FLIR system to discriminate small signals in noise.

The NETD is given by:

$$NETD = T / (V_s / V_n)$$

where:

V_s = Signal Voltage

V_n = Noise Voltage

The Perceived signal-to-noise ratio $(S/R)_p$ is necessary to achieve a detection and is expressed by:

$$(S/N)_p = (S/N)_t \, [Teff/MDTD]$$

where:

$(S/N)_t$ = experimentally determined SNR for 0.5 probability of detection

Teff = Effective Target-to-background temperature difference affected by the total atmospheric transmittance (τ)

$$Teff = \tau * T_{actual}$$

The MDTD of a FLIR system changes depending upon atmospheric conditions influence on radiant exchanges (i.e., sun, sky, clouds), and with thermal convection between the sea and the air. [Ref. 1]

$$MDTD = \frac{r_s 1.5\sqrt{2}\, MRTD}{\overline{I(X, Y)}}$$

where:

MRTD = minimum resolvable temperature difference

r_s = overall system Modulation Transfer Function

Since each FLIR system has its own MDTD, it is preferable to consider a previously defined value for modeling purposes, designed on the basis of blackbody-sea background.

B. IR RADIATION THROUGH THE ATMOSPHERE

To reach the FLIR detector, the radiant flux from the target has to pass through the atmosphere. The earth's atmosphere is filled with absorbing agents, components of the

atmosphere which extract energy from the supply of radiation. Also, the small particles suspended in the atmosphere cause scattering and emission of the IR radiation in all directions.

At a specific wavelength, and for a specific atmospheric state, the atmospheric transmittance (τ) is given by the Lambert-Beer law:

$$\tau = \exp\{-\mu Z\}$$

where:

Z = path length or range

μ = linear extinction coefficient

$\mu = \mu_{ma} + \mu_{ms} + \mu_{aa} + \mu_{as}$

μ_{ma} = molecular absorption

μ_{aa} = aerosol absorption

μ_{ms} = molecular scattering

μ_{as} = aerosol scattering

1. Absorption

Water vapor, carbon dioxide and ozone are the main atmospheric components which absorb the infrared radiation. FLIR performance is seriously reduced by rain, snow, fog, clouds, haze and smoke. These effects are extremely difficult to predict because they depend upon particle size, density, location, and discontinuous altitude distributions.

2. Scattering

Scattering is produced by molecules of the air and aerosol particles suspended in it.

Maritime aerosols are composed mainly of sea salt due to the evaporation of sea spray. Scattering depends on the size of these particles. The concentration and size distribution of the particles are strongly dependent on wind speed and relative humidity. The particle size number density decreases rapidly above 500 meters altitude.

Resonance occurs when the wavelength of the radiation matches the radius of the particle.

The size parameter (α) = 2π r / λ

where:

r = radius of the particle

λ = wavelength

Resonance occurs when r / λ = 7 / $2\pi \approx 1$

3. Refractivity

Refractive index (n) describes the change in the propagating characteristics of the radiation due to the medium.

n = c/v

where:

c = velocity in the free space

v = velocity in the medium

Refractive index (n) becomes a complex quantity because a phase shift occurs at the interaction of the wave with the medium, changing speed of propagation. The real part describes the phase velocity of the wave, and the imaginary part is the extinction coefficient and represents the wave

absorption at the resonant frequency. The refractive index of the atmosphere depends on molecular resonance, and can be expressed by:

$$n - 1 = 77.6p / T \{1 + 0.0075 / \lambda^2\} \times 10^{-6}$$

where:

λ = wavelength in micrometers

p = pressure in milibars

T = temperature in °C

The refraction (n-1), is directly proportional to the pressure and inversely proportional to the temperature. Pressure and temperature fluctuations produce variations on the index of refraction of the atmosphere.

4. Turbulence

The atmospheric turbulence also affects the performance of a FLIR system by decreasing the resolution. The modulation transfer function (MTF), which is the modulus of the optical transfer function (OTF) is highly affected by the atmospheric turbulence.

The parameter of interest for the optical properties of the atmosphere due to the turbulence is expressed by the index of refraction turbulence structure constant (C_n).

$$C_n = 79 \times 10^{-6} (p / T^2) C_t$$

where:

C_t = temperature turbulence structure constant

In order to know the vertical distribution of moisture and aerosols on the environment, a radiosonde reading is required.

The vertical profiles of temperature, pressure and relative humidity are used as input to the UFLR program.

The predicted UFLR performance obtained allows one to estimate the range in nautical miles for the detection, classification and identification of a particular surface target by an airborne FLIR system for different height levels.

C. OPERATIONAL PERFORMANCE MODELING

1. Definitions

The operational performance for FLIRs is measured in terms of Detection, Classification and Identification of different size targets. The size of the image on the display screen (number of picture elements) depends on the range to the given target and the focal length of the optics.

a. Detection

To achieve a Detection, at least one picture element above the threshold is required. The performance is described in terms of the Noise Equivalent Temperature Difference (NETD).

b. Classification

A Classification is achieved when the detected image allows one to discern the class or type of the target.

c. Identification

A target is identified when the image is composed of large number of pixels and allows one to identify the target with great detail.

d. Probability of Detection

The probability of detection (just a target's presence), for a FLIR can be expressed in the terms of the perceived signal-to-noise ratio $(S/N)_p$, by [Ref. 2]:

$$P(det) = Q\,[(S/N)_p - (S/N)_t]$$

where:

Q is the standard Normal distribution

$$Q(x) = 1/2\pi \int_{-\infty}^{x} e^{(-t^2/2)} dt$$

$$(S/N)_p = (S/N)_t * \text{Teff/MDTD}$$

The Detection with 0.5 probability occurs at a range where:

$(S/N)_p = (S/N)_t$; or $P(det) = Q\,[0.0] = 0.5$.

At this range: Teff = MDTD.

The UFLR program considers the targets as rectangular blocks of fixed dimensions and will display detection ranges for the following four target sizes:

TYPE	LENGTH	HEIGHT
Destroyer "Coontz" class ("Sovremenny")	155 m.	16 m.
Frigate "Knox" class ("Krivak")	130 m.	14 m.
Corvette "Pegasus" class ("Osa")	40 m.	8 m.
Surfaced SS	20 m.	5 m.

And for the following flight altitudes: 500 Ft., 1000 Ft., 1500 Ft., 2000 Ft., 2500 Ft., 3000 Ft., 3500 Ft., 4000 Ft., 5000 Ft., 7500 Ft., 10000 Ft., 15000 Ft., 20000 Ft., 25000 Ft. and 30000 Ft.

2. UFLR Program Description

The UFLR program was designed for the prediction of the FLIR performance in terms of flight altitude versus maximum range for detection, classification and identification of various sized surface targets, as a part of the Tactical Environmental Support System (TESS).

The program consists of the following subroutines:

a. Profile Subroutine

This subroutine creates profiles of height, absolute humidity, electro-optic m-units and molecular absorber density. It requires as input data: the atmospheric pressure (mb), temperature (°C) and relative humidity (%),

for the preselected radiosonde height levels, the radiosonde launch height, and the pressure (mb) at that height. See Figure 2.2)

b. Aerosol Extinction Coefficient Subfunction

It computes the aerosol extinction coefficient for a particular height as a function of surface wind speed (m/sec), relative humidity, horizontal visibility (Km), altitude (Km) and wavelength (μm). The transmittance model included as a part of the UFLR program was developed by Katz B. (1979). (See Figure 2.3)

c. Effective Earth Radius Subfunction

It computes the effective earth radius. IR propagation is considered in a cylindrical coordinate frame, ignoring all earth curvature and refractive effects. The atmosphere is assumed to consist of concentric, stratified layers. The refractive index is considered to vary linearly with altitude. It requires as input data the height array, the aerosol extinction coefficient array and the number of elements of both. (See Figure 2.4)

d. Transmittance Subroutine

This subroutine computes an integrated molecular absorber amount and an integrated extinction coefficient for each height level along a set of predefined rays preselected to provide adequate flight altitude/range resolution for the FLIR field of view.

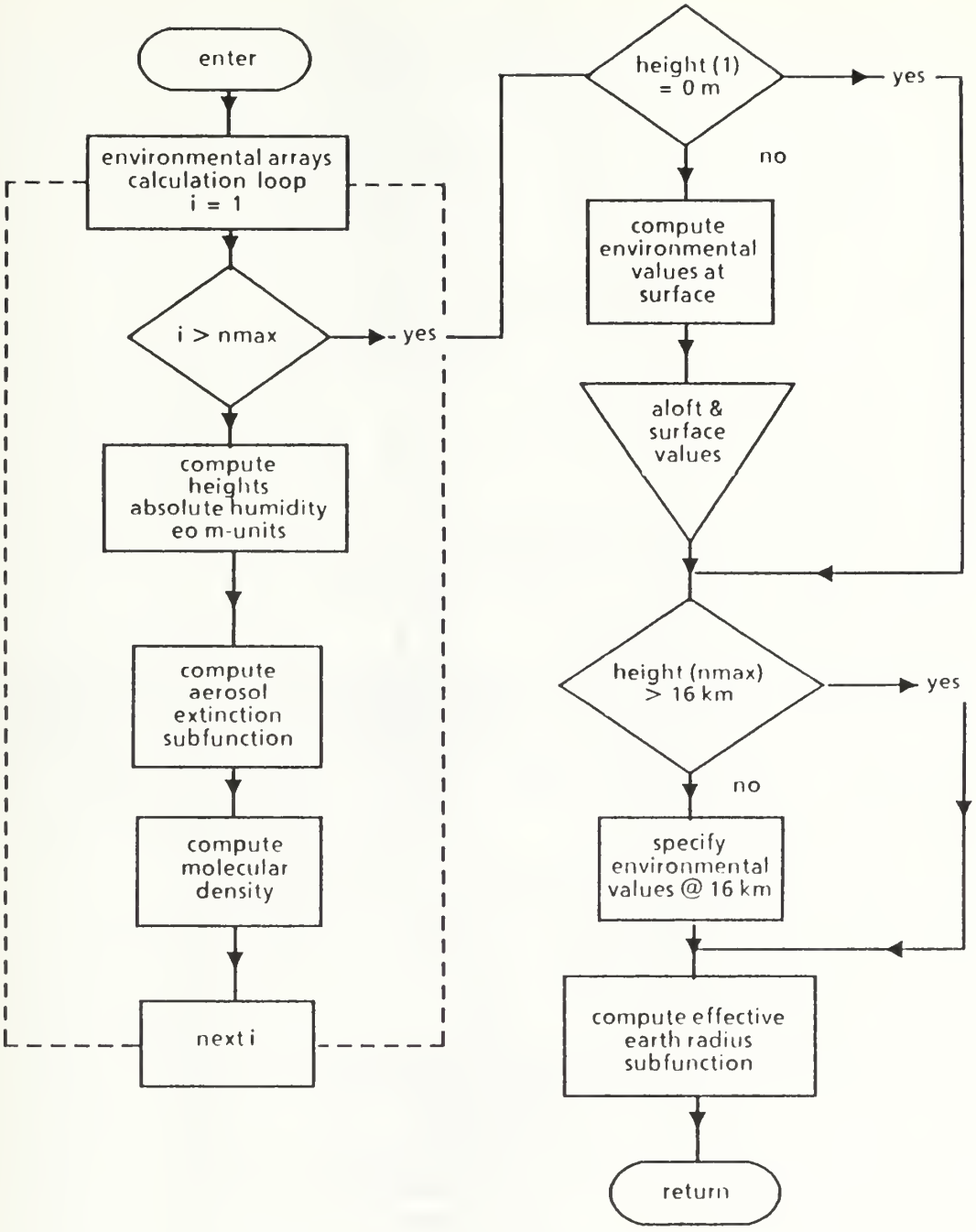


Figure 2.2 Profile Subroutine Flowchart

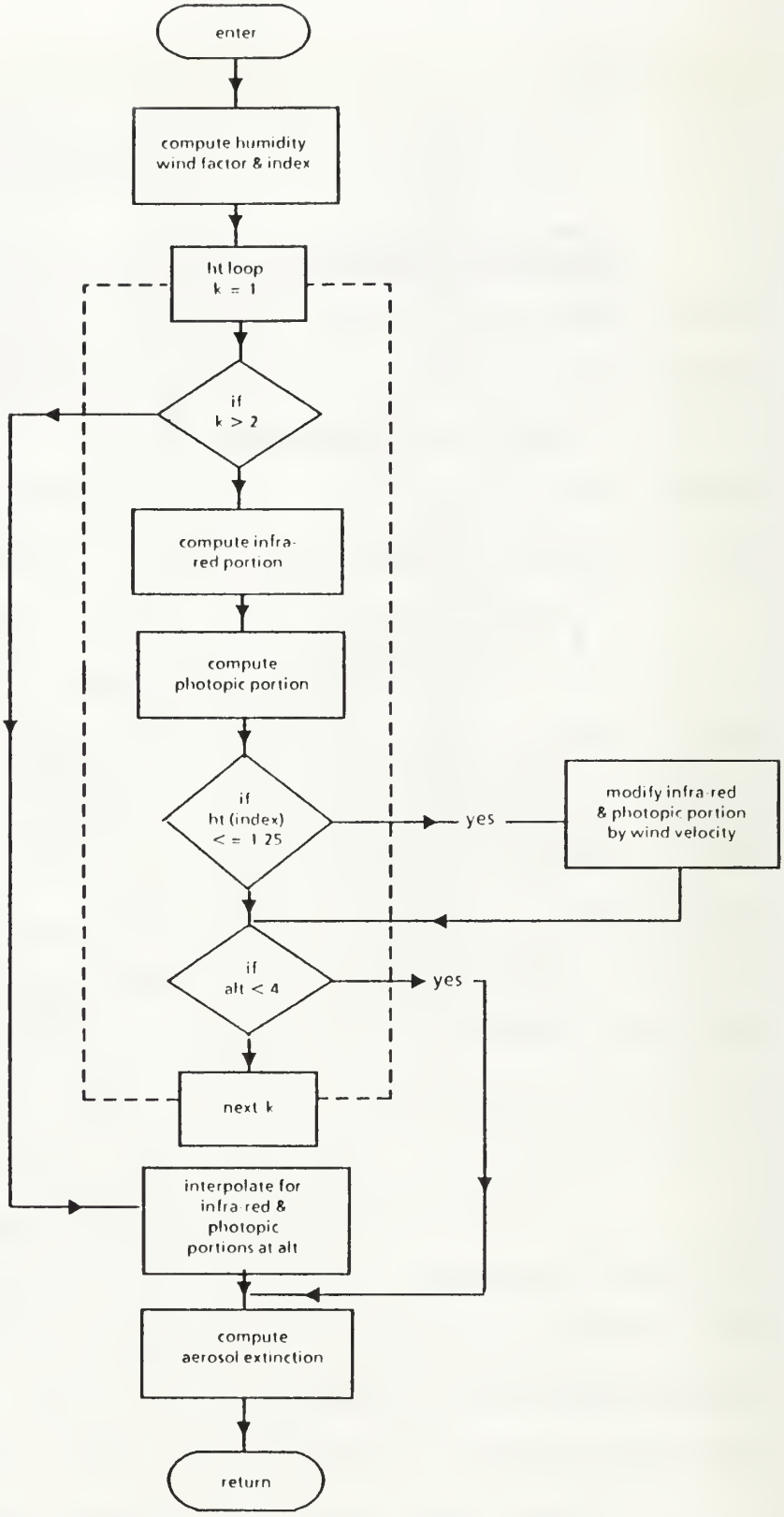


Figure 2.3 Aerosol Extinction Coefficient Subfunction Flowchart

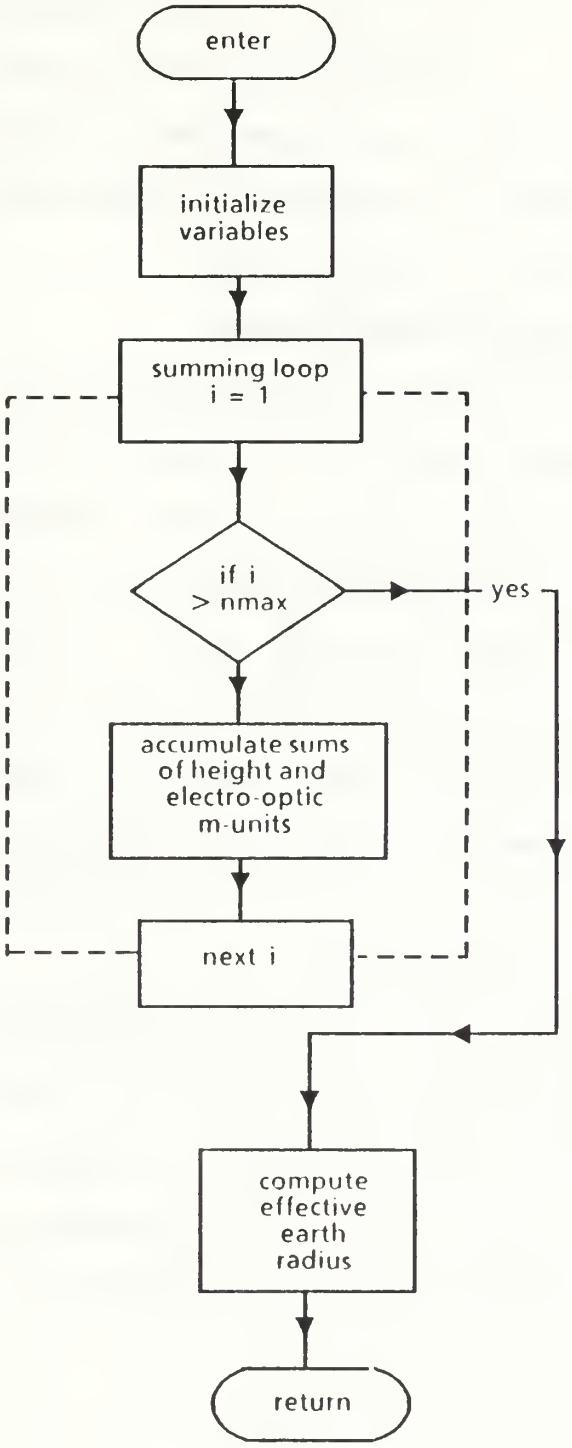


Figure 2.4 Effective Earth Radius Subfunction Flowchart

After these computations, the transmittance is calculated for each of the flight altitude/ray pair.It requires as input: the selected altitudes array, the selected ray launch angle array, an accumulated slant-path range over the incremental path of integration and the total band average molecular extinction. (Figure 2.5)

e. Integration Subroutine

This subroutine integrates the molecular absorber density or aerosol extinction along the ray path. The following inputs were required by this subroutine: Heights of lower and upper integration bounds, a ray's launch angle, a molecular absorber density array, aerosol extinction coefficient array, an interpolated value of molecular density or aerosol extinction, the effective earth radius and integration increments of range over the slant-path. (Figure 2.6)

f. Index Subfunction

This auxiliary subfunction finds the first element of an array greater than a specified value and determines the corresponding array index number. It uses as input: the environmental height array, an integration height and the specified environmental height. (Figure 2.7)

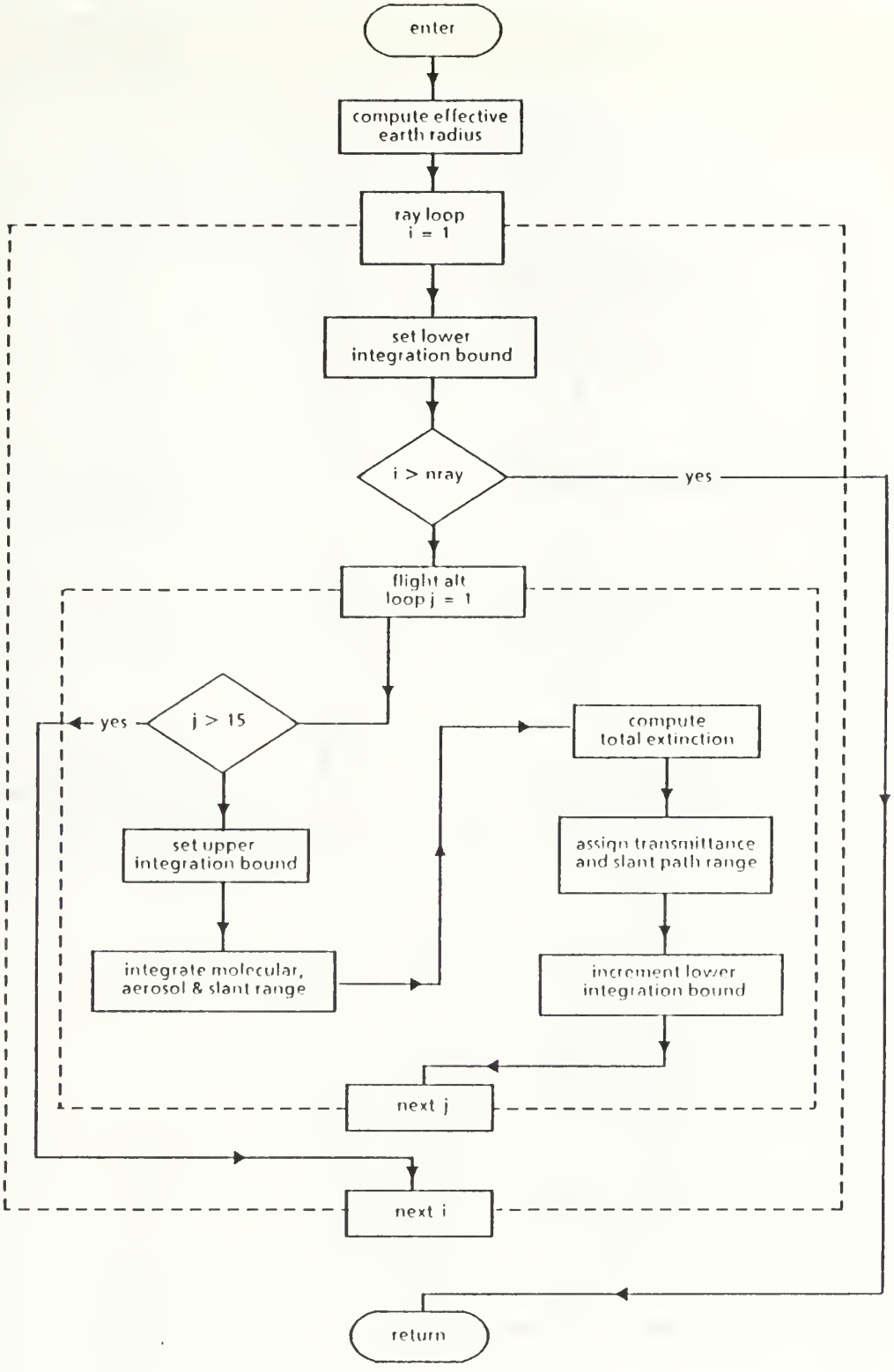


Figure 2.5 Transmittance Subroutine Flowchart

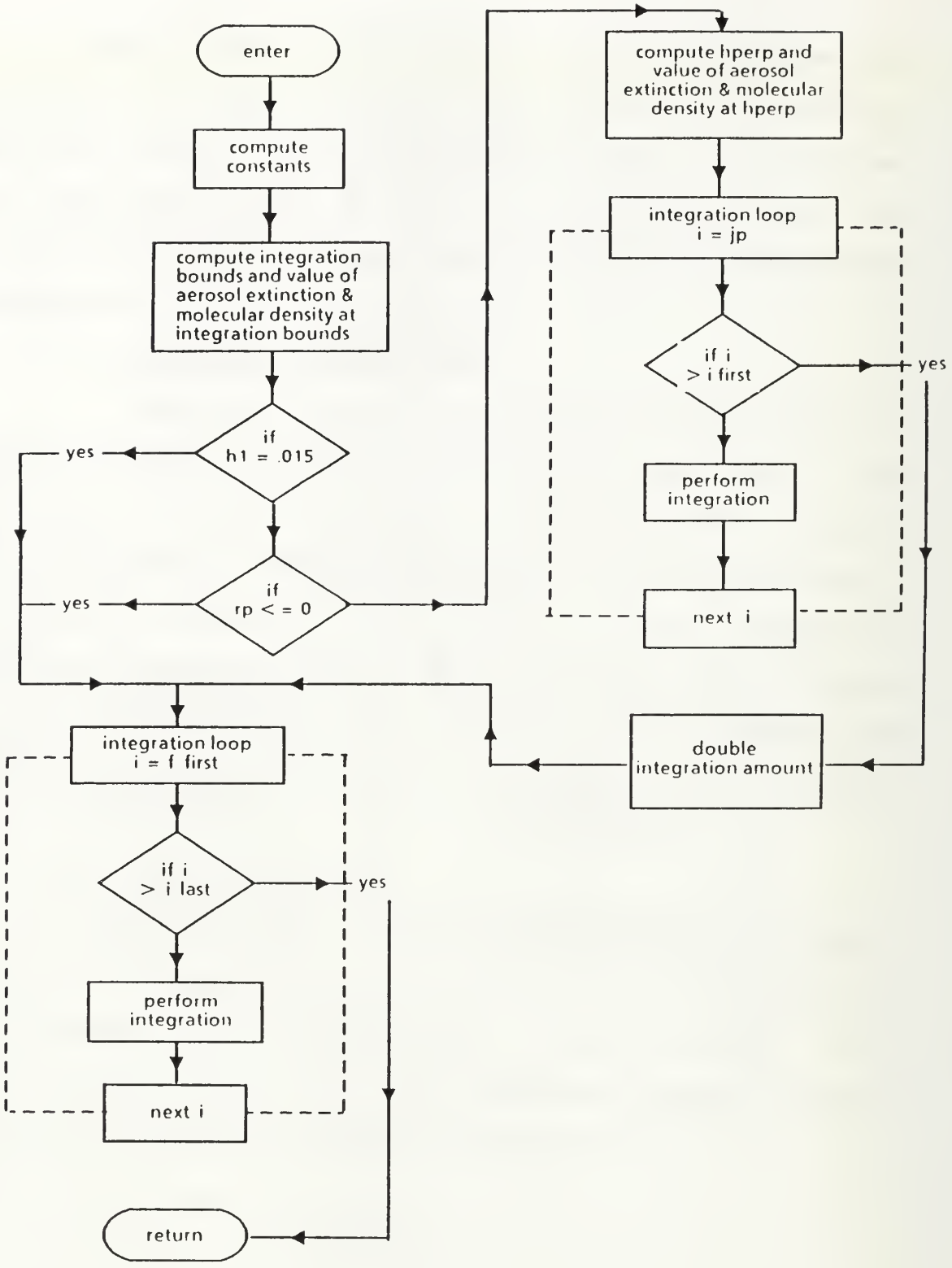


Figure 2.6 Integration Subroutine Flowchart

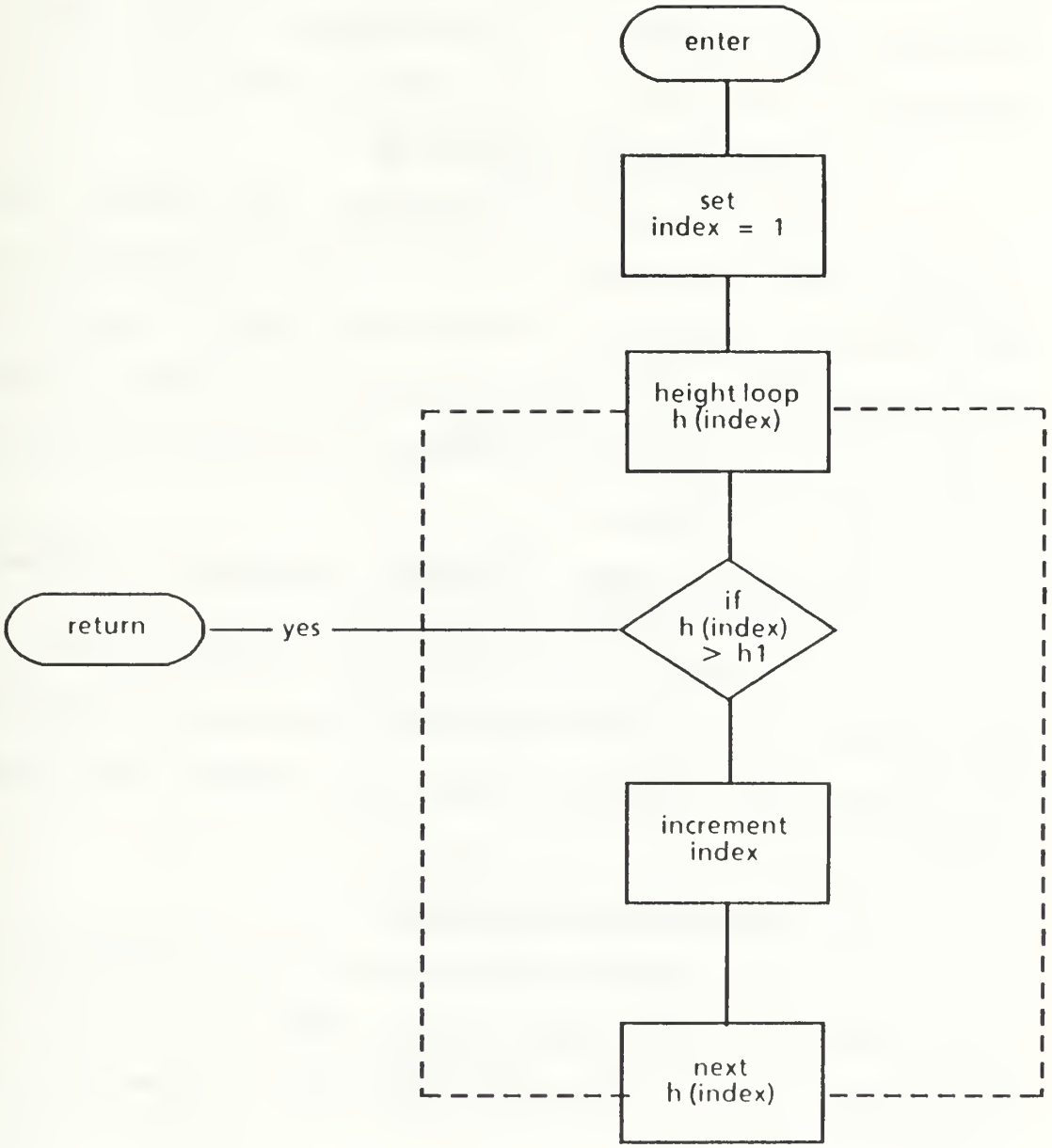


Figure 2.7 Index Subfunction Flowchart

g. Power Law Subfunction

It is used to interpolate a value between the elements of an array. This subfunction requires as input: the aerosol extinction coefficient array, the molecular absorber density array, an environmental height array, an integration height and an array index number.

h. Taylor Series Subroutine

This subroutine computes the Taylor series expansion about the midpoint of an integration interval, thus determines an incremental integration amount. The input to this subroutine were the left and right height interval limits, the corresponding integrand values and the effective earth radius. (Figure 2.8)

i. Total Band Average Molecular Extinction Subfunction

It computes the molecular absorber density and the total band averaged molecular extinction equation by calculating the transmittances for several slant paths. (Figure 2.9)

j. Performance Subroutine

This subroutine calculates a 0.5 probability of detection of a particular sized target by a FLIR system expressing it in terms of range for a specific flight altitude.

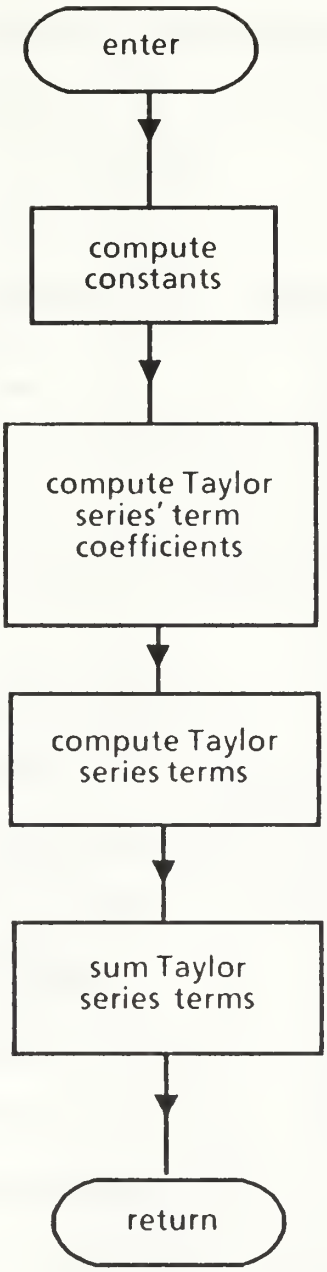


Figure 2.8 Taylor Series Subroutine Flowchart

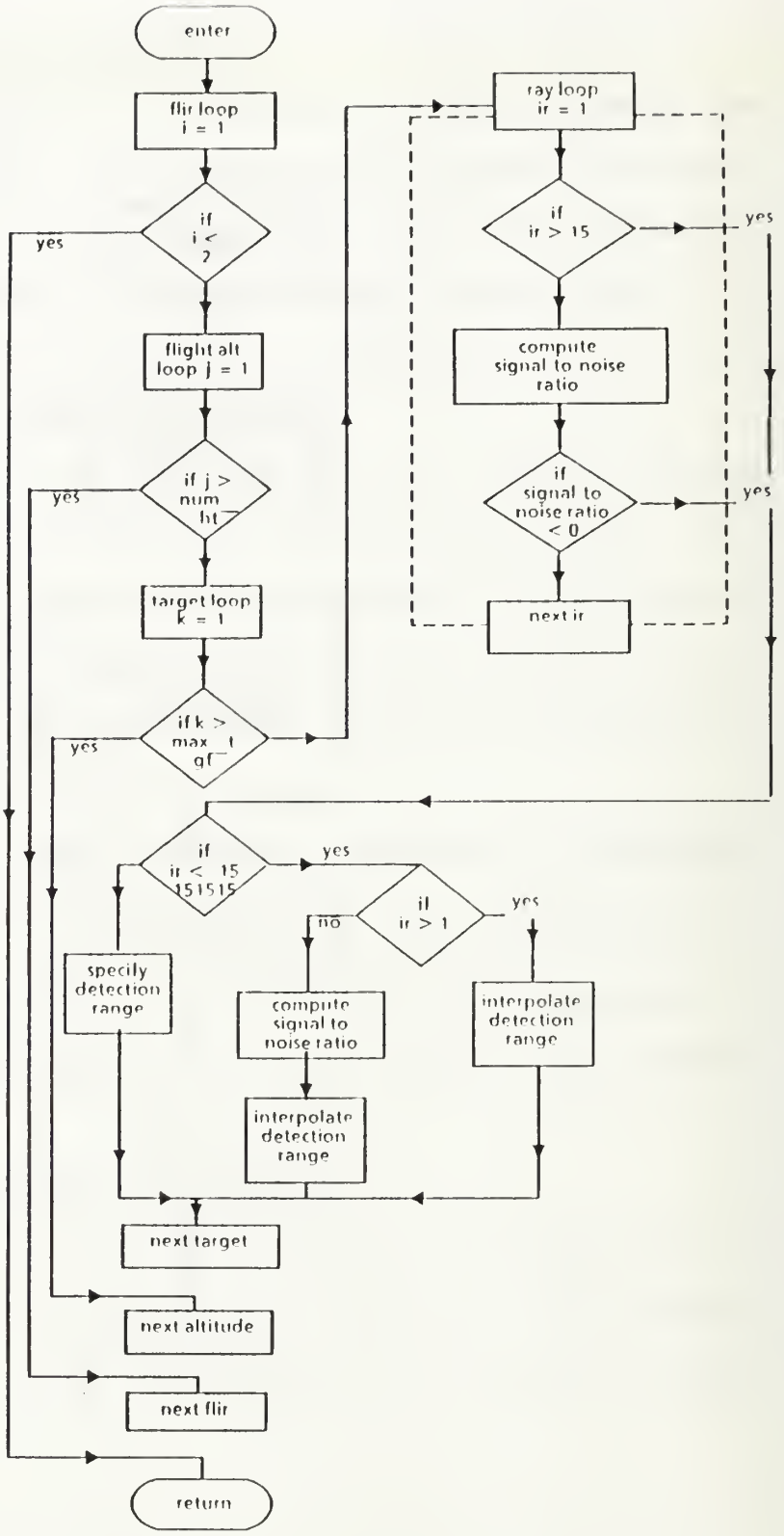


Figure 2.9 Total Band Average Molecular Extinction Subfunction Flowchart

This subroutine requires as input: the selected flight altitude array, the number of targets, the dimensions of the targets (length and height), the target to background temperature differences, the minimum detectable temperature difference, the transmittance array, the slant-path array and a detection range.

k. Minimum Detectable Temperature Difference Subfunction

It computes the MDTD associated with the FLIR/target combination. This subfunction has as input the length and height of the target, the slant-path range from the FLIR to the target and the FLIR system characteristics. (Figure 2.10)

l. Display Subfunction

This subfunction displays the detection, classification and identification ranges for each flight altitude. It requires as input: the surface wind velocity and the horizontal visibility.

D. STATISTICAL ANALYSIS

1. Test for Normality

The actual atmospheric profiles were dithered for different combinations of pressure, temperature and relative humidity standard deviations simulating random atmospheric variations.

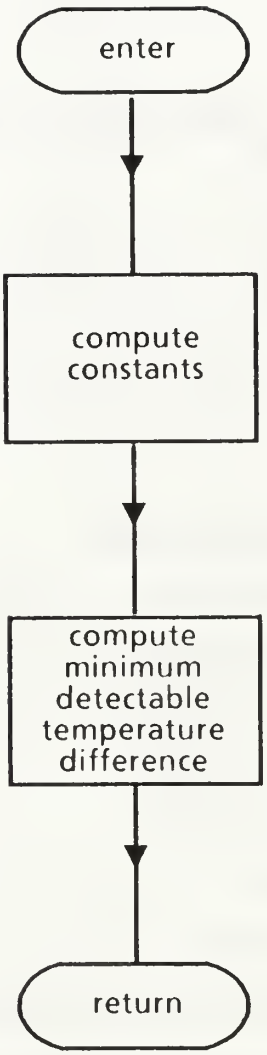


Figure 2.10 Minimum Detectable Temperature Difference (MDTD) Subfunction Flowchart

Processed by the UFLR program, the dithered profiles gave different performances for each of the four target sizes (range vs flight altitude). The population distribution of the data collected was analyzed using the MINITAB program of the Naval Postgraduate School's main frame. A numerical summary of the results was completed.

2. Difference Between Means

a. Single Factor Analysis of Variance

When the output of the UFLR program was graphically displayed by the program UFLRPLT, the variance of the dithered performance was given in a form of spread curves within the actual predicted performance.

After determining that the population distribution of the dithered profiles was normal, the FLIR predicted performance for the actual radiosonde data was compared to the performance obtained for the simulated data by applying a one-way analysis of variance (ANOVA), to the data sampled from both populations.

An F-test statistic at a 0.05 significance level (α), was performed to determine if both populations had a common mean value (actual mean = simulated mean).

b. Difference Between Means

A second analysis was performed by taking three testing points (three different height levels), and applying a two-sample t test. A 95% confidence interval for the difference between the two means was calculated.

For a normal population, the probability of an observed value within three standard deviations (3σ) of the mean (μ) is equal to 0.9974. By using the standard deviation values obtained from the experimental section, one could estimate a spread in nautical miles within which the range for detection, classification and identification of the same target about the predicted values for a selected operational flight altitude could be located with a given level of confidence.

III. EXPERIMENTAL PROCEDURE

A. THE FLIR PERFORMANCE PREDICTION BY THE UFLR MODEL

The UFLR model used for this research was the P.C. version by John Cook (September 1987), which was modified for the Naval Postgraduate School main frame computer system (Appendix 1).

The inputs for the UFLR model are the radiosonde data (pressure, temperature and relative humidity), aerosol parameters, FLIR system parameters, target parameters and the effective temperature differences (ΔT).

It is important to mention that the FLIR system parameters used are not those of operational systems, since this is classified information.

The output of the model is expressed in terms of flight altitude (feet) versus maximum range (nmi) for the detection, classification and identification of different sized targets.

The output can be graphically displayed by plotting the above values. The graph in Figure 3.1 shows an example of a typical UFLR output. This graph consists of three curves corresponding to the identification, classification and detection for each target.

TARGET	1			2			3			4		
Alt Feet	Det (nmi)	Class (nmi)	ID	Det (nmi)	Class (nmi)	ID	Det (nmi)	Class (nmi)	ID	Det (nmi)	Class (nmi)	ID
500	7.2	1.6	0.7	9.7	3.0	1.3	12.5	5.3	2.5	15.2	8.7	4.5
1000	7.1	1.6	0.6	9.6	3.0	1.3	12.3	5.3	2.5	15.0	8.7	4.5
500	7.3	1.6	0.6	9.9	3.0	1.2	12.6	5.3	2.5	15.4	8.8	4.6
2000	7.5	1.5	0.7	10.2	3.0	1.2	13.2	5.4	2.5	16.1	9.0	4.6
2500	7.5	1.4	0.7	10.3	3.0	1.2	13.4	5.4	2.4	16.4	9.1	4.6
3000	7.7	1.4	0.7	10.5	2.9	1.2	13.6	5.5	2.3	16.7	9.1	4.6
3500	7.8	1.5	0.7	10.7	2.8	1.3	13.9	5.4	2.3	17.1	9.2	4.6
4000	7.9	1.5	0.7	10.9	2.8	1.3	14.2	5.5	2.3	17.5	9.3	4.7
5000	8.3	1.6	0.0	11.4	2.7	1.3	15.0	5.6	2.3	18.6	9.6	4.5
7500	9.3	1.6	0.0	13.1	2.9	1.4	17.4	5.4	2.6	22.0	10.1	4.4
10000	10.4	1.7	0.0	14.6	3.2	0.0	19.6	5.4	2.6	25.1	10.5	4.5
15000	12.3	0.0	0.0	16.7	3.2	0.0	23.0	5.8	2.7	29.8	10.4	5.1
20000	13.3	0.0	0.0	18.8	0.0	0.0	25.1	6.2	0.0	33.0	10.4	5.2
25000	14.3	0.0	0.0	21.0	0.0	0.0	28.0	6.3	0.0	37.4	10.9	5.3
30000	15.0	0.0	0.0	23.1	0.0	0.0	31.3	6.4	0.0	41.7	11.5	5.3

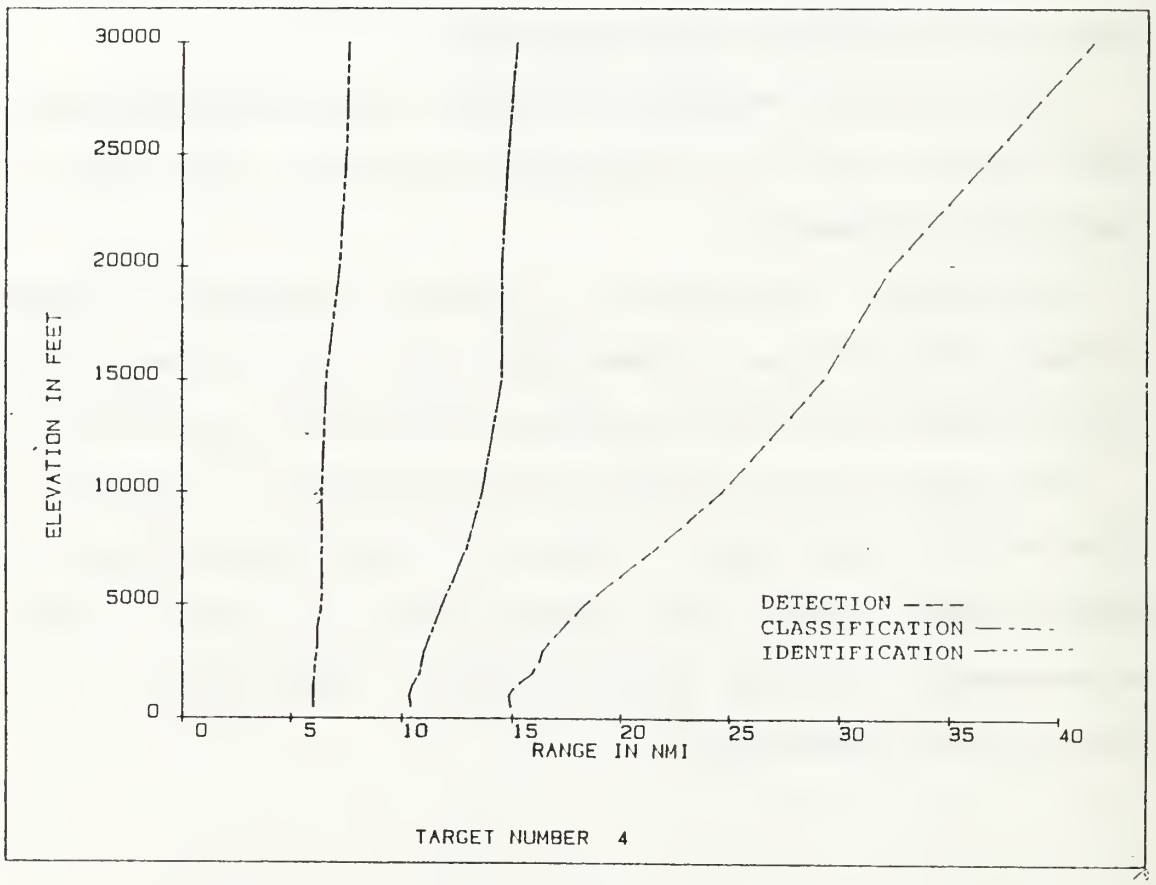


Figure 3.1. Typical UFLR output

B. GENERATION OF ATMOSPHERIC DATA AFFECTED BY RANDOM VARIATIONS

The generation of radiosonde data affected by random atmospheric variations was performed using the computer program UFLRATM (Appendix 2).

The actual data consisted of eight radiosonde profiles taken along the California coast (Latitude = 36° N, Longitude = 122° W), within 3 days in the spring of 1989.

The pressure (in millibars), temperature (in degrees), and relative humidity (in percentage), were extracted from each profile corresponding to the height levels from sea level to 28,000 ft. (for every 1,000 ft.). The eight extracted files were named: cal1, cal2, cal3, cal4, cal5, cal6, cal7 and cal8 (see profiles in Appendix 3). The actual values of pressure, temperature and relative humidity of the 3 day radiosonde data (the 8 profiles), were averaged and observed level by level, in order to determine coherent standard deviation values for the simulation of more atmospheric profiles about the actual data.

The following results were obtained:

	Max S.dev.	Min. S.dev
pressure	3.49	1.20
temperature	4.01	0.77
rel. humidity	22.5	7.08

Using the information above, the following standard deviation values were selected for the pressure (SIGMAP),

temperature (SIGMAT), and relative humidity (SIGMARH):

SIGMAP = 1.5, 2.5

SIGMAT = 1.0, 2,0, 4.0

SIGMARH= 8.0

The values above, were selected considering that the available data was very small, from a short period of time and for a particular location. The objective of this thesis was the performance of the FLIR system at slightly different times and locations, and this simulation of the variation of the environmental parameters was based on the limited set of radiosonde data available.

The range of the pressure standard deviations (SIGMAP), was within the range actually observed, same for the temperature (SIGMAT); But, in the case of the relative humidity (SIGMARH), the only value for which the simulated data did not appear unreasonable was used.

The standard deviation values were combined in all possible ways (six different combinations), as shown:

COMBINATION	SIGMAP	SIGMAT	SIGMARH
A	2.5	1.0	8.0
B	2.5	2.0	8.0
C	2.5	4.0	8.0
D	1.5	1.0	8.0
E	1.5	2.0	8.0
F	1.5	4.0	8.0

The eight extracted files cal1,cal2, cal3,...,cal8; were input to the program UFLRTRAM which dithered the actual values simulating the random atmospheric variations by using a Gaussian random number generator (0,1), multiplied by the six different combinations of standard deviation values of SIGMAP, SIGMAT and SIGMARH.

The UFLRATM program was designed for ten (10) replications for each of the 6 different combinations. This gave a total of 60 different dithered profiles (six groups of ten) just for that particular file, and a grand total output of 480 different dithered profiles (48 output files), for the 8 California coast atmospheric files. These output files (see examples Appendix 4), were named as follows:

FILE	COMBINATION	OUTPUT FILE
cal1	A	cal 1A
	B	cal 1B
	C	cal 1C
	D	cal 1D
	E	cal 1E
	F	cal 1F
cal2	A	cal 2A
	B	cal 2B
	C	cal 2C
	D	cal 2D
	E	cal 2E
	F	cal 2F
cal3	A	cal 3A
	B	cal 3B
	C	cal 3C
	D	cal 3D
	E	cal 3E
	F	cal 3F

FILE	COMBINATION	OUTPUT
cal4	A	cal 4A
	B	cal 4B
	C	cal 4C
	D	cal 4D
	E	cal 4E
	F	cal 4F
cal5	A	cal 5A
	B	cal 5B
	C	cal 5C
	D	cal 5D
	E	cal 5E
	F	cal 5F
cal6	A	cal 6A
	B	cal 6B
	C	cal 6C
	D	cal 6D
	E	cal 6E
	F	cal 6F
cal7	A	cal 7A
	B	cal 7B
	C	cal 7C
	D	cal 7D
	E	cal 7E
	F	cal 7F
cal8	A	cal 8A
	B	cal 8B
	C	cal 8C
	D	cal 8D
	E	cal 8E
	F	cal 8F

C. INPUT OF RADIOSONDE DATA TO THE UFLR PROGRAM

1. Input of Actual Radiosonde Data to the UFLR Program

The extracted files cal1, cal2, cal3, cal4, cal5, cal6, cal7, and cal8, without any modification, were input to the UFLR program.

The predicted FLIR performances obtained from this actual data for the detection, classification and identification of a surfaced submarine (target No. 1), a missile corvette (target No. 2), a frigate (target No. 3) and a destroyer (target No. 4), served as the reference for further comparison purposes (appendix 5).

2. Input of Radiosonde Data Affected by Atmospheric Variations

The UFLR program was modified in order to process the dithered profiles obtained in paragraph B. above, in groups of ten (10) replications, one per every simulated profile.

The output was 480 different predicted performances grouped in 48 files of ten performances each (see examples in Appendix 6).

INPUT (48 files)	OUTPUT (48 files)
cal1A	file1A
cal1B	file1B
.	.
.	.
cal1F	file1F
cal2A	file2A
.	.
.	.
cal8E	file8E
cal8F	file8F

The above output was graphically displayed by the program UFLRPLT (Appendix 7). The dithered performances appeared as a spread of curves for detection, classification and identification of every target and for the six different atmospheric variation combinations. The spread was found to be greatest for the detection curves and particularly for the largest target.

D. TEST FOR NORMALITY

Next, an analysis was made to determine the normal distribution of the spread of predicted ranges for a particular height level and for every target. The test was performed concentrating on height levels of 1,500 ft., 5,000 ft. and 10,000 ft. and for the detection range curves, where the spread was widest.

Starting with the height level of 1,500 ft. and for the combination A, the whole row of data corresponding to this height level was extracted from the dithered performances output files: file1A, file2A, file3A, file4A, file5A, file6A, file7A and file8A. The same proceedure was followed for all the other combinations. The result was six arrays of 80 rows and 12 columns each, which were the input data for the normality test. Since the test was concentrated on the detection range data, the columns of interest of the array were the c1 (detection ranges for target No. 1), c4 (detection

ranges for target No. 2), c7 (detection ranges for target No. 3) and c10 (detection ranges for target No. 4).

The six combinations and three height levels gave a total of 18 arrays for testing purposes (Appendix 8).

The test used [Ref. 3; p.574], consisted of the use of probability plots and sample correlation coefficient (r). The more the r value deviates from 1, the less the probability plot resembles a straight line. The straighter the probability plot, the more plausible is a normal distribution.

A critical value (c_α) of 0.9757, for a 0.1 significance level (α) was used.

The null hypotheses (Ho): "the population is normal", is rejected if $r \leq c_\alpha$.

The sample correlation coefficient (r) for the n pairs $(x_i, y_i)...(x_n, y_n)$ is given by:

$$r = \frac{n\sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{n\sum x_i^2 - (\sum x_i)^2}\sqrt{n\sum y_i^2 - (\sum y_i)^2}}$$

n = 80, the size of the sample

x_i = sample values ordered from smallest to largest

y_i = sample percentile of a population distribution

$$Y_i = \Phi^{-1}\left[\frac{i - 0.375}{n + 0.25}\right]$$

The test was performed using the statistical MINITAB program. To illustrate the test for the combination A and height level of 1,500 ft.:

```
                                                    Comments
MTB \   READ 'FILENAME' C1 - C12                    (80 rows x 12 c. read)

MTB \   SET C13

MTB \   LET C13 = C13 - 0.375

MTB \   LET C13 = C13 / 80.25

MTB \   SORT C1 C1                                  (orders the sample)

1MTB \  INVCDF C13 C14;

        SUBC \  NORMAL

MTB \   PLOT C14 C1                                 (probability plot)

MTB \   CORR C14 C1                                 (finds r value)

correlation of C14 and C1 (r) = 0.982
```

Since r is greater than c_α = 0.9757, the null hypotheses is not rejected and the population distribution is assumed to be normal.

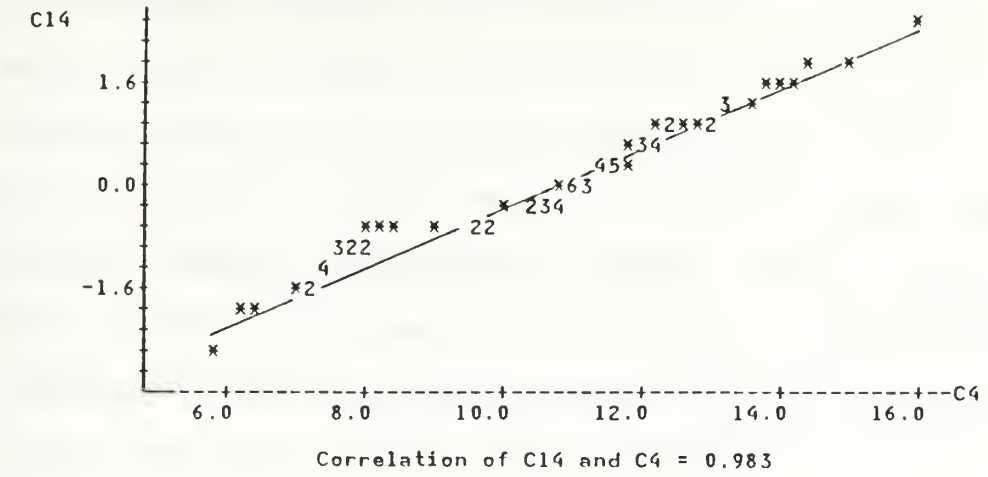
Continuing the same procedure for columns c4, c7, and c10, produced the following results (Figure 3.2):

correlation of C14 and C4 (r) = 0.983

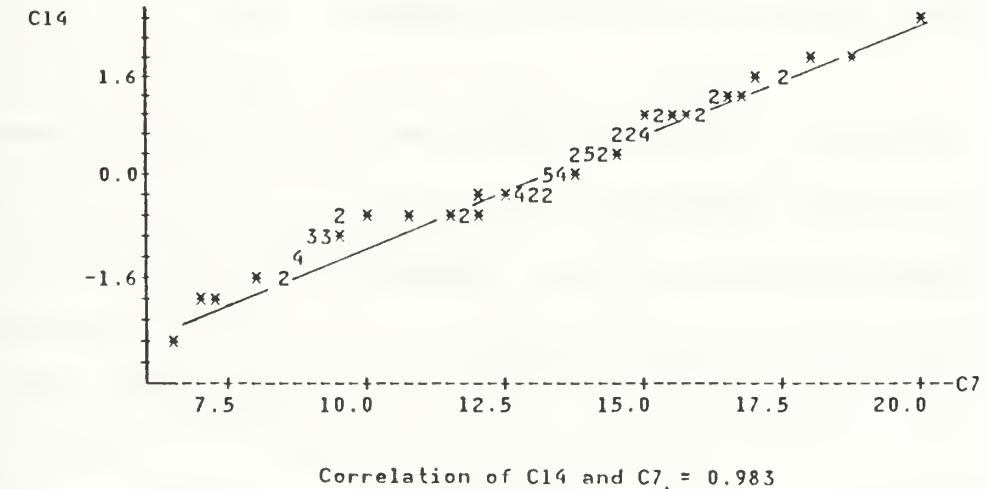
correlation of C14 and C7 (r) = 0.983

correlation of C14 and C10 (r) = 0.984

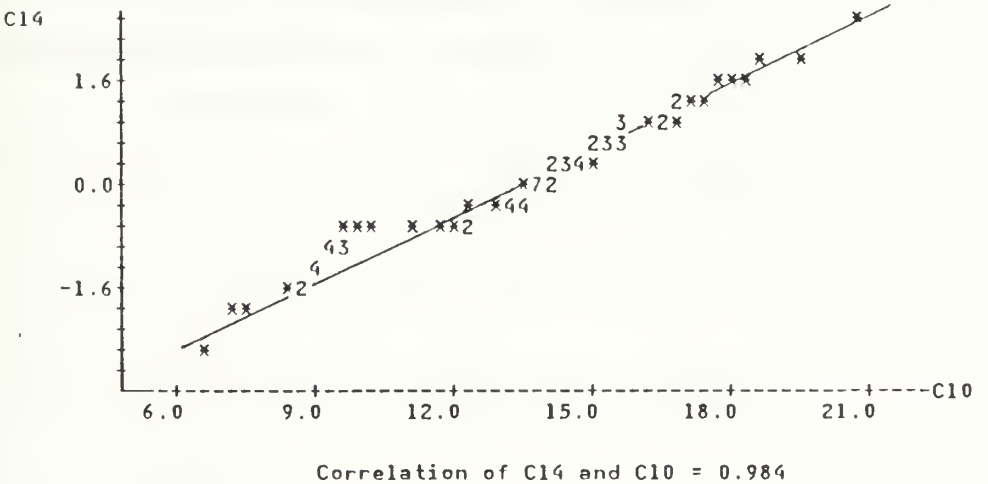
Following the same procedure for the other five combinations, the results were favorable and the normality was proven for all cases. The summary of the results is found in Appendix 9.



Correlation of C14 and C4 = 0.983



Correlation of C14 and C7 = 0.983



Correlation of C14 and C10 = 0.984

Figure 3.2 Examples of Probability Plots

E. DIFFERENCE BETWEEN ACTUAL AND DITHERED PERFORMANCE MEANS

A one-way analysis of variance was performed for the data selected on the 18 arrays (Appendix 7). Starting with the height level of 1,500 ft, one could compare the predicted detection range values assuming the random atmospheric combinations as six different treatments, and the predicted performance for the actual data as a seventh treatment.

The null hypothesis (Ho) stated that the means were identical for all the treatments (I):

$$Ho = \mu_1, \mu_2 \ldots\ldots \mu_7$$

versus the alternative hypothesis (Ha) that at least two of the μ's were different.

The null hypothesis is rejected for a $F \geq F\alpha$, for a significance level α of 0.05.

The computations are summarized on the ANOVA table:

Source of Variation	d.f.	Sum of Squares	Mean Square	F
Treatments	I-1	SSTr	MSTr=SSTr/(I-1)	MSTr
Error	I(J-1)	SSE	MSE=SSE/I(J-1)	MSE
Total	IJ-1	SST		

where:

SST = Total Sum of squares = $\sum_{i=1}^{I}\sum_{j=1}^{J} X_{ij}^2 - 1/IJ\, X^2...$

SSTr = Treatment Sum of squares = $1/J\sum_{i=1}^{I} X_{i.}^2 - 1/IJ\, X^2...$

SSE = Error Sum of Squares = $\sum_{i=1}^{I}\sum_{j=1}^{J} X_{ij}$

$X_{i.}$ = sum of numbers in the ith row of the table

X... = sum of all the X_{ij}'s

The test was performed using the MINITAB statistical program, and the same procedure was followed for the other three targets and for the other two selected height levels of 5,000 ft. and 10,000 ft.

In addition, a 95% confidence interval for the difference between the means of the performances of the actual and dithered radiosonde profiles was determined by the t-interval [Ref. 3]:

$$X - Y \pm t_{\alpha/2,\, m+n-2} \cdot Sp \sqrt{1/m + 1/n}$$

for 95% = 100 (1- α) confidence interval

where:

X = sample mean of the dithered values

Y = sample mean of the actual values

m = size of the dithered sample

n = size of the actual sample

m + n - 2 = degrees of freedom

SP = pooled estimator of the common variance

$$Sp^2 = \frac{1}{(m+n-2)}\left[\sum(Xi-X)^2 + \sum(Yj-Y)^2\right] \quad .$$

The above procedure was applied for the 18 files (arrays) tested earlier (Appendix 7).

The output of the calculations above allowed one to determine the difference in nautical miles between the predicted ranges using the undithered radiosonde data and the mean predicted ranges for the dithered radiosonde data.

IV. RESULTS SECTION

A. RESULTED DIFFERENCES BETWEEN ACTUAL AND DITHERED PERFORMANCES

The FLIR performances predicted by the program UFLR for the eight actual (undithered) atmospheric profiles are shown in Appendix 5. The following were the predicted detection ranges of the four targets, for the height levels of 1,500 ft., 5,000 ft., and 10,000 ft.:

1. Height = 1,500 Ft.

Profile	Target No. 1	Target No. 2	Target No. 3	Target No. 4
cal1	6.4 nmi.	7.5 nmi.	8.8 nmi.	9.0 nmi.
cal2	9.5	11.5	14.1	14.6
cal3	6.9	8.0	9.5	9.8
cal4	9.1	10.9	13.3	13.7
cal5	10.7	13.0	16.1	16.7
cal6	10.2	12.3	15.3	15.8
cal7	9.0	10.8	13.2	13.6
cal8	10.3	12.4	15.5	16.0
Mean:	9.01	10.80	13.22	13.65
S.dev:	1.57	2.03	2.72	2.84

2. **Height = 5,000 Ft.**

Profile	Target No. 1	Target No. 2	Target No. 3	Target No. 4
cal1	10.8	13.2	16.5	17.1
cal2	13.2	16.4	21.0	21.8
cal3	11.5	14.1	17.8	18.4
cal4	14.0	17.5	22.5	23.4
cal5	13.7	17.0	21.7	22.6
cal6	13.8	17.2	22.0	23.0
cal7	12.5	15.4	19.5	20.3
cal8	14.5	18.3	23.8	24.8
Mean:	13.0	16.13	20.6	21.42
S.dev:	1.29	1.76	2.47	2.63

3. **Height = 10,000 Ft.**

Profile	Target No. 1	Target No. 2	Target No. 3	Target No. 4
cal1	14.6	18.8	23.9	25.0
cal2	16.0	20.2	26.6	27.8
cal3	15.0	18.8	24.6	25.7
cal4	17.0	21.7	28.8	30.1
cal5	15.7	19.7	25.6	26.7
cal6	16.1	20.3	26.6	27.8
cal7	14.7	18.8	23.7	24.7
cal8	17.2	22.1	29.5	30.9
Mean:	15.78	20.05	26.16	27.33
S.dev:	0.98	1.29	2.15	2.27

The following were the average of the predicted detection ranges of the four targets for the height levels of 1,500 ft., 5,000 Ft. and 10,000 Ft.; obtained from the six different dithered atmospheric profiles (six different combinations of SIGMAT, SIGMAP and SIGMARH):

Combination	SIGMAP	SIGMAT	SIGMARH
A	2.5	1.0	8.0
B	2.5	2.0	8.0
C	2.5	4.0	8.0
D	1.5	1.0	8.0
E	1.5	2.0	8.0
F	1.5	4.0	8.0

a. Height = 1,500 Ft.

	Target No. 1		Target No. 2		Target No. 3		Target No. 4	
Comb.	ave	Sdev	ave	Sdev	ave	Sdev	ave	Sdev
A	8.85	1.74	10.61	2.24	12.94	2.97	13.35	3.12
B	8.87	1.76	10.62	2.26	12.95	2.99	13.36	3.14
C	8.85	1.93	10.58	2.47	12.91	3.27	13.32	3.42
D	8.85	1.74	10.60	2.23	12.93	2.96	13.34	3.10
E	8.86	1.76	10.60	2.26	12.85	3.21	13.27	3.31
F	8.83	1.91	10.56	2.44	12.90	3.24	13.30	3.39

b. Height = 5,000 Ft.

Comb.	Target No. 1		Target No. 2		Target No. 3		Target No. 4	
	ave	Sdev	ave	Sdev	ave	Sdev	ave	Sdev
A	12.77	1.61	15.83	2.17	20.20	3.06	20.99	3.24
B	12.75	1.66	15.82	2.25	20.17	3.14	20.98	3.33
C	12.71	1.86	15.76	2.49	20.09	3.49	20.89	3.68
D	12.73	1.60	15.79	2.17	20.12	3.05	20.92	3.22
E	12.75	1.65	15.81	2.23	20.16	3.12	20.96	3.30
F	12.70	1.81	15.74	2.45	20.70	3.43	20.87	3.62

c. Height = 10,000 Ft.

Comb.	Target No. 1		Target No. 2		Target No. 3		Target No. 4	
	ave	Sdev	ave	Sdev	ave	Sdev	ave	Sdev
A	15.42	1.33	19.39	1.87	25.33	2.76	26.44	2.93
B	15.43	1.36	19.41	1.91	25.35	2.81	26.46	2.97
C	15.36	1.50	19.32	2.09	25.23	3.07	26.34	3.25
D	15.41	1.33	19.37	1.86	25.32	2.75	26.43	2.90
E	15.43	1.35	19.40	1.89	25.36	2.78	26.4	1.94
F	15.36	1.48	19.32	2.06	25.23	3.03	26.07	4.06

Using the data above, the following were the results of the t-tests performed to determine 95% confidence intervals for the difference between the mean of the actual (undithered) performances and the mean of the performance obtained for every dithered atmospheric profile:

a. Height = 1,500 Ft.

Combination A

Target No.	Pooled variance	Interval(nmi)
1	1.72	$-1.42 < \Delta\mu < 1.19$
2	2.23	$-1.82 < \Delta\mu < 1.45$
3	2.95	$-2.45 < \Delta\mu < 1.89$
4	3.09	$-2.57 < \Delta\mu < 1.98$

Combination B

Target No.	Pooled variance	Interval(nmi)
1	1.74	$-1.42 < \Delta\mu < 1.15$
2	2.24	$-1.83 < \Delta\mu < 1.46$
3	2.97	$-2.45 < \Delta\mu < 1.92$
4	3.12	$-2.58 < \Delta\mu < 2.01$

Combination C

Target No.	Pooled variance	Interval(nmi)
1	1.91	$-1.56 < \Delta\mu < 1.24$
2	2.43	$-2.00 < \Delta\mu < 1.58$
3	3.23	$-2.68 < \Delta\mu < 2.07$
4	3.38	$-2.81 < \Delta\mu < 2.16$

Combination D

Target No.	Pooled variance	Interval(nmi)
1	1.73	$-1.43 < \Delta\mu < 1.12$
2	2.21	$-1.82 < \Delta\mu < 1.43$
3	2.94	$-2.45 < \Delta\mu < 1.88$
4	3.08	$-2.57 < \Delta\mu < 1.96$

Combination E

Target No.	Pooled variance	Interval(nmi)
1	1.74	$-1.43 < \Delta\mu < 1.13$
2	2.24	$-1.84 < \Delta\mu < 1.45$
3	3.17	$-2.70 < \Delta\mu < 1.97$
4	3.28	$-2.78 < \Delta\mu < 2.04$

Combination F

Target No.	Pooled variance	Interval(nmi)
1	1.89	$-1.56 < \Delta\mu < 1.21$
2	2.41	$-2.00 < \Delta\mu < 1.54$
3	3.20	$-2.67 < \Delta\mu < 2.04$
4	3.35	$-2.81 < \Delta\mu < 2.12$

b. Height = 5,000 Ft.

Combination A

Target No.	Pooled variance	Interval(nmi)
1	1.59	$-1.40 < \Delta\mu < 0.94$
2	2.14	$-1.87 < \Delta\mu < 1.28$
3	3.02	$-2.62 < \Delta\mu < 1.82$
4	3.19	$-2.77 < \Delta\mu < 1.92$

Combination B

Target No.	Pooled variance	Interval(nmi)
1	1.63	$-1.87 < \Delta\mu < 1.38$
2	2.21	$-1.94 < \Delta\mu < 1.32$
3	3.09	$-2.7 < \Delta\mu < 1.85$
4	3.27	$-2.85 < \Delta\mu < 1.97$

Combination C

Target No.	Pooled variance	Interval(nmi)
1	1.82	$-1.63 < \Delta\mu < 1.05$
2	2.44	$-2.16 < \Delta\mu < 1.43$
3	3.41	$-3.02 < \Delta\mu < 2.01$
4	3.59	$-3.17 < \Delta\mu < 2.12$

Combination D

Target No.	Pooled variance	Interval(nmi)
1	1.58	$-1.43 < \Delta\mu < 0.9$
2	2.14	$-1.91 < \Delta\mu < 1.23$
3	3.01	$-2.69 < \Delta\mu < 1.74$
4	3.18	$-2.83 < \Delta\mu < 1.84$

Combination E

Target No.	Pooled variance	Interval(nmi)
1	1.62	$-1.44 < \Delta\mu < 0.95$
2	2.20	$-1.93 < \Delta\mu < 1.30$
3	3.07	$-2.69 < \Delta\mu < 1.82$
4	3.25	$-2.84 < \Delta\mu < 1.94$

Combination F

Target No.	Pooled variance	Interval(nmi)
1	1.77	$-1.59 < \Delta\mu < 1.00$
2	2.40	$-2.11 < \Delta\mu < 1.38$
3	3.36	$-2.38 < \Delta\mu < 2.58$
4	3.55	$-3.15 < \Delta\mu < 2.06$

c. Height = 10,000

Combination A

Target No.	Pooled variance	Interval(nmi)
1	1.30	$-1.31 < \Delta\mu < 0.60$
2	1.83	$-1.99 < \Delta\mu < 0.68$
3	2.72	$-2.82 < \Delta\mu < 1.17$
4	2.89	$-3.00 < \Delta\mu < 1.24$

Combination B

Target No.	Pooled variance	Interval(nmi)
1	1.34	$-1.33 < \Delta\mu < 0.64$
2	1.87	$-2.01 < \Delta\mu < 0.74$
3	2.76	$-2.83 < \Delta\mu < 1.23$
4	2.92	$-3.01 < \Delta\mu < 1.29$

Combination C

Target No.	Pooled variance	Interval(nmi)
1	1.47	$-1.49 < \Delta\mu < 0.67$
2	2.04	$-2.23 < \Delta\mu < 0.77$
3	3.00	$-3.13 < \Delta\mu < 1.29$
4	3.18	$-3.33 < \Delta\mu < 1.36$

Combination D

Target No.	Pooled variance	Interval(nmi)
1	1.30	$-1.32 < \Delta\mu < 0.59$
2	1.82	$-2.04 < \Delta\mu < 0.63$
3	2.70	$-2.82 < \Delta\mu < 1.15$
4	2.85	$-2.99 < \Delta\mu < 1.20$

Combination E

Target No.	Pooled variance	Interval(nmi)
1	1.33	$-1.32 < \Delta\mu < 0.63$
2	1.84	$-2.00 < \Delta\mu < 0.71$
3	2.73	$-2.81 < \Delta\mu < 1.21$
4	2.89	$-2.98 < \Delta\mu < 1.275$

Combination F

Target No.	Pooled variance	Interval(nmi)
1	1.44	$-1.47 < \Delta\mu < 0.64$
2	2.01	$-2.21 < \Delta\mu < 0.75$
3	2.96	$-3.10 < \Delta\mu < 1.26$
4	3.94	$-4.15 < \Delta\mu < 1.64$

The pooled variance is the resulted estimated value of the common variance for the undithered and dithered distributions for each of the combinations.

Also the range interval ($\Delta\mu$) in nautical miles, indicates how far apart the mean of each particular dithered performance may appear with respect to the actual predicted performance mean.

B. ANALYSIS OF VARIANCE

The following were the results of the F-test (for $\alpha = 0.05$) performed on three different height levels to determine if the population means were the same for all of the performances obtained from the six random atmospheric profiles, and the performance obtained for the actual atmospheric profiles (altogether):

a.Height: 1,500 Ft.

Target No. 1

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	1.72	0.29	0.10
error	553	1559.59	2.82	
Total	559	1561.32		

Since F was less than $F_{\alpha,6,553}=2.1$, Accept Ho: $\mu1=\mu2=...=\mu7$

Level	N	Mean	St. Dev.
combination A	80	8.856	1.742
combination B	80	8.874	1.763
combination C	80	8.850	1.939
combination D	80	8.855	1.747
combination E	80	8.859	1.764
combination F	80	8.834	1.917
actual atm	80	9.010	

Target No. 2

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	2.89	0.48	0.10
error	553	2554.00	4.62	
Total	559	2556.89		

Since F was less than Fα, Accept Ho: $\mu1 = \mu2 = ... = \mu7$

Level	N	Mean	St. Dev.
combination A	80	10.612	2.247
combination B	80	10.619	2.260
combination C	80	10.587	2.470
combination D	80	10.602	2.232
combination E	80	10.607	2.261
combination F	80	10.569	2.446
actual atm	80	10.800	

Target No. 3

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	6.72	1.12	0.13
error	553	4597.25	8.31	
Total	559	4603.97		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	12.946	2.970
combination B	80	12.957	2.999
combination C	80	12.916	3.276
combination D	80	12.935	2.965
combination E	80	12.857	3.216
combination F	80	12.904	3.242
actual atm	80	13.220	

Target No. 4

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	7.57	1.26	0.14
error	553	5019.44	9.08	
Total	559	5027.01		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = ... = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	13.356	3.119
combination B	80	13.365	3.148
combination C	80	13.324	3.428
combination D	80	13.341	3.103
combination E	80	13.277	3.317
combination F	80	13.302	3.394
actual atm	80	13.650	

b. Height = 5,000 Ft.

Target No. 1

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	4.99	0.83	0.33
error	553	1376.62	2.49	
Total	559	1381.60		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = ... = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	12.770	1.615
combination B	80	12.757	1.664
combination C	80	12.711	1.861
combination D	80	12.735	1.606
combination E	80	12.754	1.651
combination F	80	12.702	1.811
actual atm	80	13.000	

Target No. 2

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	8.17	1.36	0.30
error	553	2508.91	4.54	
Total	559	2517.08		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	15.831	2.177
combination B	80	15.821	2.251
combination C	80	15.766	2.494
combination D	80	15.791	2.172
combination E	80	15.812	2.235
combination F	80	15.745	2.454
actual atm	80	16.130	

Target No. 3

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	15.49	2.58	0.29
error	553	4931.79	8.92	
Total	559	4947.27		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = ... = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	20.200	3.066
combination B	80	20.174	3.148
combination C	80	20.094	3.491
combination D	80	20.126	3.057
combination E	80	20.164	3.127
combination F	80	20.077	3.437
actual atm	80	20.600	

Target No. 4

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	16.71	2.79	0.28
error	553	5498.87	9.94	
Total	559	5515.59		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = ... = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	20.995	3.240
combination B	80	20.980	3.331
combination C	80	20.897	3.681
combination D	80	20.924	3.225
combination E	80	20.969	3.307
combination F	80	20.876	3.623
actual atm	80	21.420	

c. Height = 10,000 Ft.

Target No. 1

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	9.95	1.66	0.99
error	553	927.72	1.68	
Total	559	937.67		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	15.421	1.334
combination B	80	15.435	1.369
combination C	80	15.369	1.509
combination D	80	15.414	1.331
combination E	80	15.436	1.358
combination F	80	15.366	1.481
actual atm	80	15.780	

Target No. 2

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	32.35	5.39	1.65
error	553	1808.32	3.25	
Total	559	1840.67		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	19.392	1.873
combination B	80	19.414	1.918
combination C	80	19.320	2.096
combination D	80	19.374	1.861
combination E	80	19.402	1.890
combination F	80	19.320	2.068
actual atm	80	20.050	

Target No. 3

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	51.02	8.50	1.20
error	553	3910.27	7.05	
Total	559	3961.29		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	25.334	2.769
combination B	80	25.357	2.813
combination C	80	25.237	3.071
combination D	80	25.324	2.751
combination E	80	25.360	2.781
combination F	80	25.237	3.031
actual atm	80	26.160	

Target No. 4

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	71.97	11.99	1.36
error	553	4878.97	8.82	
Total	559	4950.94		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	26.449	2.939
combination B	80	26.467	2.978
combination C	80	26.345	3.258
combination D	80	26.439	2.905
combination E	80	26.475	2.948
combination F	80	26.076	4.063
actual atm	80	27.330	

C. ERROR MARGIN ON THE PREDICTED PERFORMANCES

The earlier experimental procedure allowed one to estimate how far apart (in nautical miles) the real FLIR performances might be from the performances predicted by the UFLR model, due to random atmospheric variations of pressure, temperature and relative humidity.

The following intervals about the actual predicted performance, indicate the spread within which the true range may be localized with a probability of 0.9974 (3 standard deviations), for the height levels and atmospheric variations shown :

a. Height = 1,500 Ft.

combination target No.	A	B	C	D	E	F
			(nmi)			
1	± 5.2	± 5.3	± 5.8	± 5.2	± 5.3	± 5.7
2	± 6.7	± 6.8	± 7.4	± 6.7	± 6.8	± 7.3
3	± 8.9	± 9.0	± 9.8	± 8.8	± 9.6	± 9.7
4	± 9.3	± 9.4	±10.3	± 9.3	± 9.9	±10.2

b. Height = 5,000 Ft.

combination target No.	A	B	C	D	E	F
			(nmi)			
1	± 4.8	± 5.0	± 5.6	± 4.8	± 4.9	± 5.4
2	± 6.5	± 6.7	± 7.5	± 6.5	± 6.7	± 7.3
3	± 9.2	± 9.4	±10.5	± 9.2	± 9.4	±10.3
4	± 9.7	±10.0	±11.0	± 9.6	± 9.9	±10.8

c. Height = 10,000 Ft.

combination target No.	A	B	C	D	E	F
			(nmi)			
1	± 4.0	± 4.1	± 4.52	± 3.99	± 4.07	± 4.4
2	± 5.61	± 5.75	± 6.28	± 5.58	± 5.67	± 6.2
3	± 8.3	± 8.43	± 9.21	± 8.25	± 8.34	± 9.1
4	± 8.81	± 8.93	± 9.77	± 8.71	± 8.84	±12.2

The following intervals about the mean of each dithered profile, indicate the estimated errors on the predicted detection ranges (3 standard deviations), for the height levels of 1,500 ft., 5,000 ft. and 10,000 ft. The intervals were calculated by averaging each of the 48 UFLR output files (see chapter III, paragraph C.2. Also see appendix 8):

a. Height = 1,500 Ft.

Combination A

FILE	target No.1		No.2		No.3		No.4	
	ave	Err	ave	Err	ave	Err	ave	Err
file1A	6.2	1.81	7.2	2.26	8.48	2.85	8.68	3.00
file2A	9.1	1.92	10.9	2.50	13.38	3.30	13.81	3.50
file3A	6.4	1.38	7.5	1.72	8.89	2.33	9.10	2.44
file4A	8.8	1.99	10.64	2.58	12.96	3.34	13.35	3.47
file5A	11.26	2.62	13.71	3.51	17.06	4.67	17.70	4.87
file6A	10.17	2.14	12.30	2.83	15.2	3.82	15.72	4.03
file7A	9.19	1.51	11.03	1.92	13.47	2.59	13.90	2.67
file8A	9.57	2.22	11.51	2.91	14.13	3.91	14.59	4.17

Combination B

File	target No.1		No.2		No.3		No.4	
	ave	Err	ave	Err	ave	Err	ave	Err
file1B	5.65	2.0	7.27	0.96	8.54	3.65	8.72	3.76
file2B	9.12	1.95	10.95	2.47	13.38	2.34	13.79	3.49
file3B	6.48	1.68	7.54	2.16	8.88	2.75	9.10	2.94
file4B	8.90	2.37	10.66	3.00	12.96	4.09	13.38	4.31
file5B	11.24	2.69	13.67	3.55	17.00	4.80	17.65	5.03
file6B	10.17	2.87	12.26	2.87	15.15	3.96	15.68	4.17
file7B	9.22	1.80	11.05	2.25	13.51	3.00	13.95	3.17
file8B	9.61	2.43	11.55	3.16	14.21	4.21	14.65	4.43

Combination C

File	target ave	target Err	No.1 ave	No.1 Err	No.2 ave	No.2 Err	No.3 ave	No.3 Err	No.4 ave	No.4 Err
file1C	6.30	3.75	7.33	4.68	8.63	5.96	8.84	6.19		
file2C	9.11	3.00	10.93	3.87	13.33	5.18	13.79	5.47		
file3C	6.43	2.92	7.50	3.60	8.84	4.63	9.04	4.81		
file4C	8.89	3.93	10.60	4.93	12.93	6.54	13.30	6.85		
file5C	11.16	3.68	13.55	4.72	16.89	6.48	17.47	6.77		
file6C	10.08	3.33	12.17	4.34	15.00	5.79	15.53	6.14		
file7C	9.21	3.30	11.05	4.13	13.50	5.60	13.95	5.82		
file8C	9.62	3.74	11.56	4.72	14.19	6.35	14.64	6.63		

Combination D

file1D	6.18	1.66	7.18	2.06	8.42	2.73	8.63	2.76		
file2D	9.13	1.86	10.96	2.39	13.39	3.23	13.83	3.37		
file3D	6.45	1.41	7.53	1.68	8.88	2.28	9.07	2.34		
file4D	8.84	1.83	10.59	2.34	12.87	3.12	13.27	3.27		
file5D	11.25	2.58	13.66	3.43	17.04	4.59	17.62	4.80		
file6D	10.16	2.14	12.26	2.76	15.14	3.78	15.67	4.00		
file7D	9.22	1.45	11.07	1.79	13.53	2.41	13.97	2.51		
file8D	9.61	2.09	11.57	2.68	14.21	3.63	14.62	3.57		

Combination E

file1E	6.21	2.17	7.2	2.67	8.48	3.42	8.68	3.50		
file2E	9.15	1.82	10.97	2.38	13.41	3.13	13.83	3.32		
file3E	6.45	1.66	7.54	2.00	8.87	2.63	7.00	2.75		
file4E	8.84	2.19	10.59	2.86	12.89	3.70	13.30	3.88		
file5E	11.24	2.69	13.67	3.55	17.03	4.81	17.65	5.00		
file6E	10.13	2.20	12.23	2.84	15.13	3.87	15.63	4.00		
file7E	9.22	1.79	11.00	2.27	13.57	3.00	14.00	3.19		
file8E	9.63	2.41	11.58	3.00	14.24	4.00	14.71	4.29		

Combination F

file1F	6.24	3.58	7.28	4.40	8.57	5.77	8.76	5.96		
file2F	9.13	3.00	10.96	3.74	13.39	5.00	13.82	5.27		
file3F	6.44	2.85	7.49	3.54	8.85	4.46	9.05	4.65		
file4F	8.82	3.70	10.55	4.75	12.85	6.22	13.25	6.53		
file5F	11.13	3.50	13.50	4.57	16.83	6.26	17.41	6.47		
file6F	10.06	3.12	12.13	3.97	15.00	5.66	15.50	5.95		
file7F	9.23	3.23	11.00	4.00	13.54	5.50	13.96	5.74		
file8F	9.62	3.61	11.53	4.64	14.21	6.16	14.68	6.48		

b. Height = 5,000 Ft.

Combination A

File	target	No.1	No.2		No.3		No.4	
	ave	Err	ave	Err	ave	Err	ave	Err
file1A	10.63	4.09	13.00	5.53	16.23	7.68	16.82	8.10
file2A	12.60	2.55	15.60	3.43	19.89	4.92	20.65	5.15
file3A	10.78	2.59	13.17	3.52	16.47	4.78	17.05	5.10
file4A	13.50	3.15	16.78	4.34	21.48	6.13	22.35	6.51
file5A	14.54	2.50	18.24	3.45	23.60	5.00	24.60	5.25
file6A	13.82	2.44	17.24	3.47	22.17	5.00	23.08	5.28
file7A	12.85	2.11	15.87	2.80	20.25	4.00	21.04	4.20
file8A	13.44	3.36	16.75	4.72	21.50	6.87	22.37	7.31

Combination B

file1B	10.45	3.60	12.76	4.80	15.90	6.68	16.46	6.96
file2B	12.63	2.63	15.61	3.52	19.89	4.95	20.69	5.27
file3B	10.81	2.92	13.19	4.00	16.49	5.42	17.08	5.70
file4B	13.50	3.45	16.80	4.68	21.49	6.52	22.35	6.93
file5B	14.50	2.70	18.27	3.81	23.61	5.32	24.63	5.65
file6B	13.84	2.65	17.26	3.74	22.19	5.26	23.13	5.59
file7B	12.84	2.42	16.00	3.24	20.28	4.48	21.08	4.78
file8B	13.46	3.58	16.77	5.04	21.54	7.16	22.42	7.57

Combination C

file1C	10.47	4.95	12.78	6.65	15.92	9.22	16.50	9.66
file2C	12.49	3.84	15.56	4.41	19.79	6.25	20.58	6.57
file3C	10.77	3.98	13.14	5.40	16.40	7.39	17.00	7.76
file4C	13.45	4.46	16.71	6.00	21.39	8.28	22.25	8.75
file5C	14.51	3.50	18.18	4.92	23.52	6.89	24.51	7.29
file6C	13.77	3.42	17.18	4.78	22.07	6.72	22.99	7.12
file7C	12.82	3.45	15.88	4.64	20.24	6.54	21.03	6.93
file8C	13.41	4.49	16.70	6.22	21.42	8.76	22.32	9.23

Combination D

file1D	10.39	2.93	12.67	3.91	15.76	5.40	16.32	5.68
file2D	12.62	2.46	15.62	3.36	19.89	4.81	20.67	5.07
file3D	10.78	2.42	13.19	3.35	16.45	4.57	17.03	4.80
fil34D	13.44	3.02	16.72	4.21	21.39	5.93	22.26	6.24
file5D	14.52	2.40	18.21	3.45	23.55	4.86	23.05	5.25
file6D	13.82	2.42	17.24	3.46	22.15	5.04	23.05	5.25
file7D	12.85	2.04	15.91	2.85	20.28	3.95	21.09	4.16
file8D	13.46	3.28	16.77	4.64	21.54	6.65	22.42	7.04

Combination E

File	Target No1 ave	Err	No.2 Ave	Err	No.3 Ave	Err	No.4 Ave	Err
file1E	10.42	3.42	12.70	4.60	15.84	6.26	16.40	6.72
file2E	16.63	2.55	15.64	3.44	19.92	4.81	20.71	5.09
file3E	10.79	2.74	13.20	3.79	16.47	5.18	17.07	5.33
file4E	13.47	3.28	16.73	4.52	21.42	6.33	22.28	6.67
file5E	14.54	2.69	18.27	3.81	23.61	5.32	24.63	5.65
file6E	13.83	2.53	17.24	3.65	22.17	5.15	23.07	5.49
file7E	12.88	2.39	15.93	3.23	20.32	4.52	21.14	4.80
file8E	13.47	3.50	16.79	4.90	21.56	7.00	22.45	7.44

Combination F

file1F	10.45	4.74	12.71	6.40	15.85	8.87	16.44	9.33
file2F	12.58	3.26	15.56	4.29	19.83	6.11	20.60	6.46
file3F	10.76	3.87	13.14	5.12	16.40	7.12	17.00	7.42
file4F	13.40	4.26	16.65	5.68	21.29	7.95	22.16	8.36
file5F	14.49	3.39	18.17	4.75	23.49	6.61	24.47	7.06
file6F	13.76	3.27	17.17	4.60	22.06	6.50	22.97	6.87
file7F	12.82	3.36	15.88	4.57	20.26	6.39	21.04	6.75
file8F	13.39	4.34	16.68	6.03	21.44	8.48	22.33	9.03

c. Height = 10,000 Ft.

Combination A

File	target ave	No.1 Err	No.2 ave	Err	No.3 ave	Err	No.4 ave	Err
file1A	13.92	3.86	17.38	5.00	22.45	7.47	23.41	7.89
file2A	15.24	2.57	19.09	3.75	24.90	5.69	26.00	6.02
file3A	13.94	3.07	17.38	4.07	22.38	6.19	23.31	6.58
file4A	16.31	2.96	20.63	4.65	27.09	6.97	28.30	7.44
file5A	16.77	1.75	21.27	2.56	28.05	3.87	29.33	4.20
file6A	16.15	2.10	20.37	3.34	26.75	5.09	27.95	5.41
file7A	15.16	1.61	18.96	2.46	24.69	3.73	25.75	3.92
file8A	15.88	3.39	20.06	5.24	26.36	7.99	27.54	8.54

Combination B

file1B	13.95	4.23	17.42	5.63	22.54	8.35	23.48	8.82
file2B	15.25	2.49	19.09	3.58	24.92	5.52	25.98	5.75
file3B	13.93	3.34	17.38	4.38	22.37	6.57	23.32	6.96
file4B	16.31	3.14	20.62	4.69	27.08	6.98	28.30	7.47
file5B	16.79	1.76	21.37	2.68	28.07	4.04	29.34	4.37
file6B	16.15	2.25	20.38	3.40	26.76	5.22	27.93	5.49
file7B	15.19	1.92	18.98	2.70	24.74	4.07	25.81	4.25
file8B	15.90	3.46	20.07	5.30	26.38	8.03	27.58	8.54

Combination C

File	Target ave	Target Err	No.1 Ave	No.1 Err	No.2 Ave	No.2 Err	No.3 Ave	No.3 Err
file1C	13.93	5.37	17.42	7.42	22.54	10.80	23.48	11.46
file2C	15.17	2.81	19.00	3.92	24.76	5.92	25.84	6.20
file3C	13.85	4.14	17.25	5.40	22.27	8.03	23.18	8.44
file4C	16.23	3.60	20.50	5.20	26.92	7.75	28.12	8.19
file5C	16.72	2.26	21.21	3.41	27.96	5.07	29.23	5.42
file6C	16.08	2.74	20.27	4.06	26.59	6.10	27.80	6.48
file7C	15.14	2.68	18.94	3.72	24.64	5.40	25.70	5.75
file8C	15.83	3.94	19.97	5.81	26.22	8.84	27.41	9.42

Combination D

file1D	13.88	3.71	17.33	4.80	22.40	7.11	23.35	7.52
file2D	15.24	2.52	19.08	3.70	24.94	5.65	26.02	5.97
file3D	13.93	3.00	17.36	3.90	22.35	5.98	23.31	6.33
file4D	16.27	3.03	20.56	4.59	26.99	7.01	28.22	7.29
file5D	16.75	1.68	21.26	2.63	28.03	3.94	29.29	4.19
file6D	16.14	2.20	20.36	3.41	26.75	5.15	27.93	5.05
file7D	15.17	1.76	18.97	2.55	24.74	3.78	25.81	3.94
file8D	15.93	3.34	20.07	5.10	26.40	7.86	27.58	8.37

Combination E

file1E	13.90	4.13	17.38	5.40	22.47	8.00	23.46	8.49
file2E	15.26	2.45	19.12	3.57	24.95	5.41	26.03	5.72
file3E	13.95	3.15	17.37	4.12	22.39	6.24	23.33	6.70
file4E	16.30	3.01	20.58	4.61	27.04	6.80	28.25	7.33
file5E	16.79	1.76	21.29	2.63	28.07	4.04	29.34	4.37
file6E	16.17	2.23	20.37	3.43	26.75	5.25	27.93	5.54
file7E	15.19	1.93	19.01	2.77	24.78	4.11	25.86	4.32
file8E	15.93	3.39	20.10	5.20	26.43	7.88	27.60	8.44

Combination F

file1F	13.92	5.18	17.37	7.01	22.47	10.42	23.41	10.96
file2F	15.16	2.76	19.02	3.92	24.79	5.81	25.89	6.11
file3F	13.87	4.02	17.28	5.30	22.27	7.80	23.22	8.28
file4F	16.21	3.41	20.49	5.10	26.89	7.53	28.07	8.00
file5F	16.71	2.22	21.19	3.27	27.95	4.90	29.22	5.26
file6F	16.09	2.64	20.28	4.03	26.63	6.01	27.81	6.38
file7F	15.13	2.63	18.95	3.66	24.67	5.40	25.73	5.64
file8F	15.84	3.88	19.98	5.73	26.23	8.70	27.41	9.26

D. GRAPHICAL DISPLAY OF THE ACTUAL AND PREDICTED PERFORMANCES

Appendix 10 contains the plots of the UFLR predicted performances obtained for the different dithered atmospheric profiles. A graphical comparison between the actual (undithered) and the dithered performances by the program UFLR, for the detection of the four different sized targets is shown.

E. CONCLUSIONS AND RECOMMENDATIONS

It has been demonstrated that the predicted performance by the program UFLR is affected by random atmospheric variations of pressure, temperature and relative humidity, as a consequence of changes in the actual meteorological conditions.

The comparison of the predicted FLIR performances obtained from the simulated atmospheric profiles (dithered profiles), with the performance obtained from the actual atmospheric profiles (undithered profiles), allowed one to conclude that the detection of a given surface target for a given flight altitude may vary in range due to random atmospheric variations.

The plot of the dithered performances appeared as a spread of curves around the undithered performance. A normal distribution of the spread of predicted detection ranges of four different sized targets for the height levels of 1,500 ft., 5,000 ft. and 10,000 ft. was found.

It is recommended before starting FLIR surveillance operations, to perform atmospheric simulations along with the radiosonde readings to estimate changes on the atmospheric conditions in time and position for the given operational area during the operation hours.

It is also recommended that a statistical analysis be performed using a large number of radiosonde profiles and more replications for the dithered FLIR performances, otherwise the data used may not show the true variability. A large amount of data available, could improve the precision on the mean and the estimated error ranges about the predicted values.

APPENDIX 1

COMPUTER PROGRAM UFLR

```
C     PROGRAM UFLR                                                      UFL00010
      CHARACTER*20 INAME,ONAME                                          UFL00020
      COMMON /COMPPER/ RA(18,15),TRANS(18,15)                           UFL00030
      COMMON /COMPPNT/ PREDHT(15)                                       UFL00040
      COMMON /ENVIRO/  Z(55),P(55),T(55),RH(55),VIS,HTO,PRO,FF          UFL00050
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY                              UFL00060
      COMMON /PERFPNT/ PERFR(3,5,15)                                    UFL00070
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT              UFL00080
      COMMON /LUNITS/  LUIN, LUERR, LUOUT                               UFL00090
      OPEN (LUERR,FILE='UFLR.OUT',STATUS='unknown')                     UFL00100
      IOS = 0                                                           UFL00110
 34   WRITE (*,*) ' ENTER INPUT RADIOSONDE FILENAME : '                 UFL00120
      READ (*,'(A)') INAME                                              UFL00130
      OPEN (LUIN,FILE=INAME,STATUS='OLD',ERR=3,IOSTAT=IOS)              UFL00140
 3    IF (IOS.NE.0) THEN                                                UFL00150
        WRITE (*,*) ' OPEN ERROR - FILENAME MUST EXIST'                 UFL00160
        GO TO 34                                                        UFL00170
      ENDIF                                                             UFL00180
      OPEN (UNIT = 9,FILE ='UFFFF',STATUS ='OLD')                       UFL00190
C                                                                       UFL00200
C       MAIN LOOP                                                       UFL00210
C     ************                                                      UFL00220
      DO 88 NREP = 1,10                                                 UFL00230
            CALL FLIRIN (INAME,ONAME)                                   UFL00240
            CALL ATMOS  (LUIN,NMAX)                                     UFL00250
            CALL PROFILE                                                UFL00260
            CALL TRNSMTA                                                UFL00270
            CALL PERFORM                                                UFL00280
            CALL MSGOUT (VIS,FF,LUOUT,INAME,ONAME)                      UFL00290
            REWIND 9                                                    UFL00300
 88   CONTINUE                                                          UFL00310
      STOP                                                              UFL00320
      END                                                               UFL00330
C                                                                       UFL00340
C                                                                       UFL00350
      SUBROUTINE FLIRIN (INAME,ONAME)                                   UFL00360
C     ******************                                                UFL00370
C                                                                       UFL00380
      COMMON /ENVIRO/  Z(55),P(55),T(55),RH(55),VIS,HTO,PRO,FF          UFL00390
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY                              UFL00400
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT              UFL00410
      COMMON /LUNITS/  LUIN, LUERR, LUOUT                               UFL00420
      COMMON /FLIRPAR/ A1(3),A2(3),EX(3),EY(3),CRIT(3)                  UFL00430
      CHARACTER*20 INAME,ONAME                                          UFL00440
      DO 2 I=1,24                                                       UFL00450
        WRITE (*,*) '  '                                                UFL00460
 2    CONTINUE                                                          UFL00470
      WRITE (*,*) ' P R O G R A M   U F L R '                           UFL00480
      WRITE (*,*)                                                       UFL00490
     &' COMPUTES FLIR SYSTEM PERFORMANCE FROM P, T, AND RH SOUNDINGS'   UFL00500
 97   WRITE(*,*)' ENTER OUTPUT FILE NAME '                              UFL00510
      READ(*,'(A20)') ONAME                                             UFL00520
      OPEN (LUOUT,FILE=ONAME,STATUS='NEW',ERR=99)                       UFL00530
      GO TO 98                                                          UFL00540
 99   WRITE(*,*)' OUTPUT FILE ALREADY EXISTS! ENTER NEW NAME '          UFL00550
      GO TO 97                                                          UFL00560
 98   WRITE (*,*) '  '                                                  UFL00570
      WRITE (*,*) '  '                                                  UFL00580
      WRITE (*,*) '  '                                                  UFL00590
      WRITE (LUOUT,'(///,'' INPUT FILENAME: '',A20)') INAME             UFL00600
      WRITE (LUOUT,'('' OUTPUT FILENAME: '',A20)') ONAME                UFL00610
C     WRITE (LUOUT,104)                                                 UFL00620
C     WRITE (LUOUT,103) (I,P(I),T(I),RH(I),I=1,NMAX)                    UFL00630
      DO 6 I=1,3                                                        UFL00640
        A1(I) = 0                                                       UFL00650
        A2(I) = 0                                                       UFL00660
        EX(I) = 0                                                       UFL00670
        EY(I) = 0                                                       UFL00680
 6    CONTINUE                                                          UFL00690
      DO 7 I=1,5                                                        UFL00700
        TDT(I) = 0                                                      UFL00710
        TGTX(I) = 0                                                     UFL00720
```

```
        TGTY(I) = 0                                                          UFL00730
 7      CONTINUE                                                             UFL00740
        NUMTGT = 0                                                           UFL00750
        FF     = 0                                                           UFL00760
        VIS    = 0                                                           UFL00770
        PR0    = 0                                                           UFL00780
        HT0    = 0                                                           UFL00790
        WRITE (*,*) '  '                                                     UFL00800
        WRITE (*,*) '  '                                                     UFL00810
        WRITE (*,*) '  '                                                     UFL00820
        WRITE (*,*) '  '                                                     UFL00830
        WRITE (*,*) '  '                                                     UFL00840
        WRITE (*,*) ' ************************************************'      UFL00850
        WRITE (*,*) ' *                                              *'      UFL00860
        WRITE (*,*) ' *                                              *'      UFL00870
        WRITE (*,*) ' *            AEROSOL MODEL INPUTS              *'      UFL00880
        WRITE (*,*) ' *                                              *'      UFL00890
        WRITE (*,*) ' *                                              *'      UFL00900
        WRITE (*,*) ' ************************************************'      UFL00910
        WRITE (*,*) '  '                                                     UFL00920
        WRITE (*,*) '  '                                                     UFL00930
        WRITE (*,*) '  '                                                     UFL00940
 12     WRITE (*,*) ' ENTER RADIOSONDE LAUNCH HEIGHT (M) : '                 UFL00950
        READ (9,*) HT0                                                       UFL00960
        IF (HT0.LT.0.0) GO TO 12                                             UFL00970
        WRITE (*,*) '  '                                                     UFL00980
 13     WRITE (*,*) ' ENTER RADIOSONDE LAUNCH PRESSURE (MB) : '              UFL00990
        READ (9,*) PR0                                                       UFL01000
        IF (PR0.LT.0.0) GO TO 13                                             UFL01010
        WRITE (*,*) '  '                                                     UFL01020
 14     WRITE (*,*) ' ENTER SURFACE WIND SPEED (M/S) : '                     UFL01030
        READ (9,*) FF                                                        UFL01040
        IF (FF.LT.0.0) GO TO 14                                              UFL01050
        WRITE (*,*) '  '                                                     UFL01060
        WRITE (*,*) ' ENTER VISIBILITY (KM) (-1 IF UNKNOWN) : '              UFL01070
        READ (9,*) VIS                                                       UFL01080
        WRITE (*,*) '  '                                                     UFL01090
        WRITE (LUOUT,106)                                                    UFL01100
        WRITE (LUOUT,107) HT0,PR0,FF,VIS                                     UFL01110
        WRITE (*,*) '  '                                                     UFL01120
        WRITE (*,*) '  '                                                     UFL01130
        WRITE (*,*) '  '                                                     UFL01140
        WRITE (*,*) '  '                                                     UFL01150
        WRITE (*,*) '  '                                                     UFL01160
        WRITE (*,*) ' ************************************************'      UFL01170
        WRITE (*,*) ' *                                              *'      UFL01180
        WRITE (*,*) ' *                                              *'      UFL01190
        WRITE (*,*) ' *               FLIR PARAMETERS                *'      UFL01200
        WRITE (*,*) ' *                                              *'      UFL01210
        WRITE (*,*) ' *                                              *'      UFL01220
        WRITE (*,*) ' ************************************************'      UFL01230
        WRITE (*,*) '  '                                                     UFL01240
        WRITE (*,*) '  '                                                     UFL01250
        WRITE (*,*) '  '                                                     UFL01260
 20     WRITE (*,*) ' ENTER A1 ARRAY (A1(DET), A1(CLASS), A1(ID)) : '        UFL01270
        READ (9,*) A1(1),A1(2),A1(3)                                         UFL01280
        IF (A1(1).LE.0.0 .OR. A1(2).LE.0.0 .OR. A1(3).LE.0.0) GO TO 20       UFL01290
        WRITE (*,*) '  '                                                     UFL01300
 21     WRITE (*,*) ' ENTER A2 ARRAY (A2(DET), A2(CLASS), A2(ID)) : '        UFL01310
        READ (9,*) A2(1),A2(2),A2(3)                                         UFL01320
        IF (A2(1).LE.0.0 .OR. A2(2).LE.0.0 .OR. A2(3).LE.0.0) GO TO 21       UFL01330
        WRITE (*,*) '  '                                                     UFL01340
 22     WRITE (*,*) ' ENTER EX ARRAY (EX(DET), EX(CLASS), EX(ID)) : '        UFL01350
        READ (9,*) EX(1),EX(2),EX(3)                                         UFL01360
        IF (EX(1).LE.0.0 .OR. EX(2).LE.0.0 .OR. EX(3).LE.0.0) GO TO 22       UFL01370
        WRITE (*,*) '  '                                                     UFL01380
 23     WRITE (*,*) ' ENTER EY ARRAY (EY(DET), EY(CLASS), EY(ID)) : '        UFL01390
        READ (9,*) EY(1),EY(2),EY(3)                                         UFL01400
        IF (EY(1).LE.0.0 .OR. EY(2).LE.0.0 .OR. EY(3).LE.0.0) GO TO 23       UFL01410
        WRITE (*,*) '  '                                                     UFL01420
        WRITE (LUOUT,109)                                                    UFL01430
        WRITE (LUOUT,105) (A1(I),A2(I),EX(I),EY(I),I=1,3)                    UFL01440
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      WRITE (*,*) '  '                                                    UFL01450
      WRITE (*,*) '  '                                                    UFL01460
      WRITE (*,*) '  '                                                    UFL01470
      WRITE (*,*) '  '                                                    UFL01480
      WRITE (*,*) '  '                                                    UFL01490
      WRITE (*,*) ' ************************************************'     UFL01500
      WRITE (*,*) ' *                                              *'     UFL01510
      WRITE (*,*) ' *                                              *'     UFL01520
      WRITE (*,*) ' *                TARGET DATA                   *'     UFL01530
      WRITE (*,*) ' *                                              *'     UFL01540
      WRITE (*,*) ' *                                              *'     UFL01550
      WRITE (*,*) ' ************************************************'     UFL01560
      WRITE (*,*) '  '                                                    UFL01570
      WRITE (*,*) '  '                                                    UFL01580
      WRITE (*,*) '  '                                                    UFL01590
 30   WRITE (*,*) ' ENTER NUMBER OF TARGETS TO PROCESS (I <= 4) : '       UFL01600
      READ (9,*) NUMTGT                                                  UFL01610
      IF (NUMTGT.LT.1.OR.NUMTGT.GT.4) GO TO 30                           UFL01620
        DO 10 I=1,NUMTGT                                                 UFL01630
          WRITE (*,*) '  '                                               UFL01640
 31       WRITE (*,'('' ENTER TARGET('',I1,'') LENGTH (M) : '')') I       UFL01650
          READ (9,*) TGTX(I)                                             UFL01660
          IF (TGTX(I).LT.0.0) GO TO 31                                   UFL01670
          WRITE (*,*) '  '                                               UFL01680
 32       WRITE (*,'('' ENTER TARGET('',I1,'') HEIGHT (M) : '')') I       UFL01690
          READ (9,*) TGTY(I)                                             UFL01700
          IF (TGTY(I).LT.0.0) GO TO 32                                   UFL01710
          WRITE (*,*) '  '                                               UFL01720
 33       WRITE (*,'('' ENTER TARGET('',I1,                              UFL01730
     &    '') EFFECTIVE DELTA T (DEG C) : '')') I                        UFL01740
          READ (9,*) TDT(I)                                              UFL01750
          IF (TDT(I).LT.0.0) GO TO 33                                    UFL01760
 10     CONTINUE                                                         UFL01770
      WRITE (*,*) '  '                                                  UFL01780
      WRITE (LUOUT,111)                                                  UFL01790
      WRITE (LUOUT,103) (I,TGTX(I),TGTY(I),TDT(I),I=1,NUMTGT)            UFL01800
      RETURN                                                             UFL01810
 103  FORMAT (I3,3F9.2)                                                  UFL01820
 104  FORMAT (/,' LEV   P(MB)     T(C)    RH(%)')                        UFL01830
 105  FORMAT (1X,4F9.4)                                                  UFL01840
 106  FORMAT (/,'    HTO       PRO        FF       VIS')                 UFL01850
 107  FORMAT (4F9.2)                                                     UFL01860
 109  FORMAT (/,'     A1        A2        EX        EY')                 UFL01870
 111  FORMAT (/,'  I     TX        TY       TDT')                        UFL01880
      END                                                                UFL01890
C                                                                        UFL01900
      SUBROUTINE ATMOS(LUIN,NMAX)                                        UFL01910
C     ********************                                               UFL01920
C                                                                        UFL01930
      COMMON /ENVIRO/ Z(55),P(55),T(55),RH(55),VIS,HTO,PRO,FF            UFL01940
      DO 1 I=1,55                                                        UFL01950
        Z(I) = 0                                                         UFL01960
        P(I) = 0                                                         UFL01970
        T(I) = 0                                                         UFL01980
        RH(I) = 0                                                        UFL01990
 1    CONTINUE                                                           UFL02000
C     ******                                                             UFL02010
      K = 1                                                              UFL02020
      DO 25 I= 1,5                                                       UFL02030
        READ (LUIN,'(A1)')                                               UFL02040
 25   CONTINUE                                                           UFL02050
      DO 59 I=1,29                                                       UFL02060
        READ (LUIN,*,ERR=59)Z(I),P(I),T(I),RH(I)                         UFL02070
C       PRINT *, Z(I),P(I),T(I),RH(I)                                    UFL02080
        K = K+1                                                          UFL02090
 59   CONTINUE                                                           UFL02100
      NMAX = K-1                                                         UFL02110
      RETURN                                                             UFL02120
      END                                                                UFL02130
C                                                                        UFL02140
      SUBROUTINE MSGOUT (VIS,WIND,LUOUT,INAME,ONAME)                     UFL02150
C     ******************                                                 UFL02160
```

```
C                                                                       UFL02170
      COMMON /COMPPNT/ PREDHT(15)                                       UFL02180
      COMMON /PERFPNT/ PERFR(3,5,15)                                    UFL02190
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT              UFL02200
      CHARACTER*20 INAME,ONAME                                          UFL02210
      CHARACTER*17 LABEL(2)                                             UFL02220
      CHARACTER*3  CONT                                                 UFL02230
      INTEGER Q                                                         UFL02240
        Q = LUOUT                                                       UFL02250
        CKMTOFT=3280.84                                                 UFL02260
        CMPSTKNT=1.94262                                                UFL02270
        CKMTNMI=0.53961                                                 UFL02280
        LABEL(1) = 'DET CLASS  ID    '                                  UFL02290
        LABEL(2) = '    (NMI)        '                                  UFL02300
                                                                        UFL02310
      WRITE (*,'('' INPUT RADIOSONDE: '',A20)') INAME                   UFL02320
      WRITE (*,'('' WIND VELOCITY: '',F6.1,1X,''KNOTS'',5X,             UFL02330
     *           '' VISIBILITY: '',F6.1,1X,''NMI'',/)')                 UFL02340
     *          WIND*CMPSTKNT, VIS*CKMTNMI                              UFL02350
      WRITE (Q,'(/,'' WIND VELOCITY: '',F6.1,1X,''KNOTS'',/,            UFL02360
     *           '' VISIBILITY:    '',F6.1,1X,''NMI'',/)')              UFL02370
     *          WIND*CMPSTKNT, VIS*CKMTNMI                              UFL02380
      WRITE (*,'(''  TARGET   '',4(6X,I1,10X))') (I,I=1,NUMTGT)         UFL02390
      WRITE (Q,'(''  TARGET   '',4(6X,I1,10X))') (I,I=1,NUMTGT)         UFL02400
      WRITE (*,'(/,'' ALTITUDE  '',4A17)') (LABEL(1),I=1,NUMTGT)        UFL02410
      WRITE (*,'(''   FEET    '',4A17)') (LABEL(2),I=1,NUMTGT)          UFL02420
      WRITE (Q,'(/,'' ALTITUDE  '',4A17)') (LABEL(1),I=1,NUMTGT)        UFL02430
      WRITE (Q,'(''   FEET    '',4A17)') (LABEL(2),I=1,NUMTGT)          UFL02440
      DO 1 I=1,NUMHT                                                    UFL02450
        WRITE (*,200) NINT(PREDHT(I)*CKMTOFT),                          UFL02460
     *                ((PERFR(L,J,I)*CKMTNMI,L=1,3),J=1,NUMTGT)       UFL02470
        WRITE (Q,200) NINT(PREDHT(I)*CKMTOFT),                          UFL02480
     *                ((PERFR(L,J,I)*CKMTNMI,L=1,3),J=1,NUMTGT)       UFL02490
 1    CONTINUE                                                          UFL02500
      WRITE (Q,'(/)')                                                   UFL02510
      WRITE (Q,*) CHAR(12)                                              UFL02520
      WRITE (*,*) '  '                                                  UFL02530
      WRITE (*,*) 'TYPE <RETURN> TO CONTINUE  '                         UFL02540
      READ (*,'(A)') CONT                                               UFL02550
      RETURN                                                            UFL02560
  200 FORMAT (2X,I5,4(2X,3(1X,F4.1)))                                   UFL02570
      END                                                               UFL02580
C                                                                       UFL02590
      SUBROUTINE   TRNSMTA                                              UFL02600
C     ********************                                              UFL02610
C                                                                       UFL02620
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT              UFL02630
      COMMON /ENVIRO/HEIGHT(55),P(55),T(55),RH(55),VIS,HT0,PR0,FF       UFL02640
      COMMON /CALVALS/ AH(55),BAERO(55),EH(55),EOMUNIT(55)              UFL02650
      COMMON /COMPPER/ RA(18,15),TRANS(18,15)                           UFL02660
      COMMON /COMPPNT/ PREDHT(15)                                       UFL02670
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY                              UFL02680
      DOUBLE PRECISION SUMEH,H1,H2,RE                                   UFL02690
      REAL H(30)                                                        UFL02700
      RE = FNERAD (HEIGHT, EOMUNIT, NMAX)                               UFL02710
      DO 1000 I =1, NMAX                                                UFL02720
         H(I) = HEIGHT(I) * 0.001                                       UFL02730
 1000 CONTINUE                                                          UFL02740
      DO 3000 I = 1, NRAY                                               UFL02750
         ANGL = ANGLE(I)                                                UFL02760
          H1  = .015                                                    UFL02770
         SUMEH = 0.                                                     UFL02780
         BS = 0.                                                        UFL02790
         SLNTRNG = 0.                                                   UFL02800
         DO 2000 J = 1, NUMHT                                           UFL02810
             H2 = PREDHT(J)                                             UFL02820
C                                                                       UFL02830
            CALL INTGRTE ( H1,  H2, ANGL, TSR, EH, H, RE, QTY, NMAX)    UFL02840
C           ==============                                              UFL02850
            SUMEH = SUMEH + QTY                                         UFL02860
C                                                                       UFL02870
            CALL INTGRTE (H1, H2, ANGL, TSR, BAERO, H, RE, QTY, NMAX)   UFL02880
```

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C            ===============                                                UFL02890
             BS = BS + QTY                                                  UFL02900
             TAUA = EXP(-BS)                                                UFL02910
             IF (TAUA.LT.1.E-7) TAUA = 1E-7                                 UFL02920
             TAUM = FNPOLY(SUMEH)                                           UFL02930
             IF (TAUM.LT.1.E-7) TAUM = 1E-7                                 UFL02940
             TAU = TAUM * TAUA                                              UFL02950
             TRANS(I,J) = TAU                                               UFL02960
             SLNTRNG = SLNTRNG + TSR                                        UFL02970
             RA(I,J) = SLNTRNG                                              UFL02980
             H1 = H2                                                        UFL02990
 2000     CONTINUE                                                          UFL03000
 3000 CONTINUE                                                             UFL03010
      RETURN                                                               UFL03020
      END                                                                  UFL03030
C                                                                          UFL03040
      FUNCTION AEROSOL (HUMIDTY,WIND,VIS,HEIGHT,NMAX,J)                    UFL03050
C     ********************                                                 UFL03060
C                                                                          UFL03070
      DIMENSION HUMIDTY(55),HEIGHT(55)                                     UFL03080
      COMMON /SUBAERO/ HT(10),RHCT(6,10),RHC5(6,10),VCT(6,10),VC5(6,10)    UFL03090
      COMMON /CALVALS/ AH(55),BAERO(55),EH(55),EOMUNIT(55)                 UFL03100
      REAL       BETAH(2)                                                  UFL03110
      REAL       BE5(2)                                                    UFL03120
      ALT = HEIGHT(J) * 0.001                                              UFL03130
      REL = HUMIDTY(J)                                                     UFL03140
      IF (REL.LT.35.) REL = 35.                                            UFL03150
      IF (WIND.LT.4.) THEN                                                 UFL03160
         V = 0.5                                                           UFL03170
      ELSE                                                                 UFL03180
         V = WIND - 3.5                                                    UFL03190
      ENDIF                                                                UFL03200
      I = 1                                                                UFL03210
 1000 CONTINUE                                                             UFL03220
      IF (.NOT.(ALT.GE.HT(I).AND.I.NE.10)) GOTO 1100                       UFL03230
         I = I + 1                                                         UFL03240
      GOTO 1000                                                            UFL03250
 1100 CONTINUE                                                             UFL03260
      IF (I.EQ.1) I = 2                                                    UFL03270
      DO 1200 K = 1,2                                                      UFL03280
         TERM1 = RHCT(1,I) + RHCT(2,I)*REL + RHCT(3,I)*REL**2              UFL03290
         TERM2 = RHCT(4,I)*REL**3 + RHCT(5,I)*REL**4 + RHCT(6,I)*REL**5    UFL03300
         CRT   = TERM1 + TERM2                                             UFL03310
         TERM1 = VCT(1,I) + VCT(2,I)*V + VCT(3,I)*V**2                     UFL03320
         TERM2 = VCT(4,I)*V**3 + VCT(5,I)*V**4 + VCT(6,I)*V**5             UFL03330
         CVT   = TERM1 + TERM2                                             UFL03340
         TERM1 = RHC5(1,I) + RHC5(2,I)*REL + RHC5(3,I)*REL**2              UFL03350
         TERM2 = RHC5(4,I)*REL**3 + RHC5(5,I)*REL**4 + RHC5(6,I)*REL**5    UFL03360
         CR5   = TERM1 + TERM2                                             UFL03370
         TERM1 = VC5(1,I) + VC5(2,I)*V + VC5(3,I)*V**2                     UFL03380
         TERM2 = VC5(4,I)*V**3 + VC5(5,I)*V**4 + VC5(6,I)*V**5             UFL03390
         CV5   = TERM1 + TERM2                                             UFL03400
         BAVG = CVT * CRT                                                  UFL03410
         BETA5 = CR5 * CV5                                                 UFL03420
         IF (HT(I).LE.1.25) THEN                                           UFL03430
           IF (I.LE.2.AND.WIND.LE.4.) BAVG = BAVG * 1.2                    UFL03440
           IF (I.EQ.3.AND.WIND.LE.4.) BAVG = BAVG * 1.1                    UFL03450
           IF (I.LE.3.AND.WIND.GT.10.)BETA5= BETA5*(.95+(WIND-10.)*.006)UFL03460
         ENDIF                                                             UFL03470
         BETAH(K) = BAVG                                                   UFL03480
         BE5(K)   = BETA5                                                  UFL03490
         IF (ALT.GE.4.) GOTO 1300                                          UFL03500
         I = I - 1                                                         UFL03510
 1200 CONTINUE                                                             UFL03520
      DH = HT(I+2) - HT(I+1)                                               UFL03530
      DZ = ALT - HT(I+1)                                                   UFL03540
      BAVG = BETAH(1) * (BETAH(2)/BETAH(1))**(DZ/DH)                       UFL03550
      BVIS = BE5(1) * (BE5(2)/BE5(1))**(DZ/DH)                             UFL03560
      GOTO 1400                                                            UFL03570
 1300 CONTINUE                                                             UFL03580
      BAVG = BETAH(K)                                                      UFL03590
      BVIS = BE5(K)                                                        UFL03600
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 1400 CONTINUE                                                          UFL03610
      AEROSOL = BAVG                                                    UFL03620
      IF (VIS.GT.0.) THEN                                               UFL03630
         AEROSOL = AEROSOL * (3.91/BVIS)/VIS                            UFL03640
      ELSE                                                              UFL03650
         IF (J.EQ.1) VIS = 3.91/BVIS                                    UFL03660
      ENDIF                                                             UFL03670
      RETURN                                                            UFL03680
      END                                                               UFL03690
C                                                                       UFL03700
      REAL FUNCTION EXPINT (H1, H, X, IFIRST, NMAX)                     UFL03710
C     **********************                                            UFL03720
C                                                                       UFL03730
      DOUBLE PRECISION HT,H1,H2                                         UFL03740
      INTEGER IFIRST                                                    UFL03750
      REAL    H(30),X(30)                                               UFL03760
          I1 = IFIRST - 1                                               UFL03770
C         PRINT *, IFIRST,I1                                            UFL03780
      IF (IFIRST.GT.1) THEN                                             UFL03790
         HT = (H1 - H(I1)) / (H(IFIRST) - H(I1))                        UFL03800
C        PRINT *, X(IFIRST),X(I1)                                       UFL03810
         XT = X(IFIRST) / X(I1)                                         UFL03820
         EXPINT = X(I1) * XT**HT                                        UFL03830
      ELSE                                                              UFL03840
         EXPINT = X(1)                                                  UFL03850
      ENDIF                                                             UFL03860
      RETURN                                                            UFL03870
      END                                                               UFL03880
C                                                                       UFL03890
      REAL FUNCTION FNINTRP (YIN, X, Y, I)                              UFL03900
C     ************************                                          UFL03910
C                                                                       UFL03920
      INTEGER  I, I1                                                    UFL03930
      REAL     F, X(18), Y(18), YIN                                     UFL03940
      I1 = I - 1                                                        UFL03950
      IF (I.GT.1) THEN                                                  UFL03960
         F = (YIN - Y(I1)) / (Y(I) - Y(I1))                             UFL03970
         FNINTRP = X(I1) + (X(I) - X(I1)) * F                           UFL03980
      ELSE                                                              UFL03990
         FNINTRP = X(1)                                                 UFL04000
      ENDIF                                                             UFL04010
      RETURN                                                            UFL04020
      END                                                               UFL04030
C                                                                       UFL04040
      REAL FUNCTION FNPOLY (TERM1)                                      UFL04050
C     ************************                                          UFL04060
C                                                                       UFL04070
      DOUBLE PRECISION TERM1,TERM,A                                     UFL04080
      TERM = TERM1 * 100.                                               UFL04090
      A = -1.7476382E-10 * TERM                                         UFL04100
      A = TERM * (A + 6.6253610E-8)                                     UFL04110
      A = TERM * (A - 9.4287655E-6)                                     UFL04120
      A = TERM * (A + 6.2482967E-4)                                     UFL04130
      A = TERM * (A - 4.6695454E-2)                                     UFL04140
      FNPOLY = A - 1.3993507E-2                                         UFL04150
      FNPOLY = 10**FNPOLY                                               UFL04160
      RETURN                                                            UFL04170
      END                                                               UFL04180
C                                                                       UFL04190
      INTEGER FUNCTION INDXFN (H1,H,NMAX)                               UFL04200
C     **************************                                        UFL04210
C                                                                       UFL04220
      DOUBLE PRECISION H1,H2                                            UFL04230
      REAL      H(30)                                                   UFL04240
       INDXFN = 1                                                       UFL04250
 1000 CONTINUE                                                          UFL04260
      IF (.NOT.(H(INDXFN).LE.H1 .AND. INDXFN .LT. NMAX)) GOTO 1100      UFL04270
         INDXFN = INDXFN + 1                                            UFL04280
      GOTO 1000                                                         UFL04290
 1100 CONTINUE                                                          UFL04300
      RETURN                                                            UFL04310
      END                                                               UFL04320
```

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C                                                                       UFL04330
      SUBROUTINE INTGRTE (H1,H2,ANG, SR, X, H, RE, QTY, NMAX)           UFL04340
C     ********************                                              UFL04350
C                                                                       UFL04360
      DOUBLE PRECISION H1,H2,RE,HPERP,ASQUARE,RHOP,RHOO                 UFL04370
     *SINT,COST,SLANTR,QH1,QH2,QHP,HT1,HT2                              UFL04380
      INTEGER    INDXFN, IFIRST, ILAST, JP                              UFL04390
      REAL       ANG, EXPINT,H(30),X1,X2                                UFL04400
      REAL       INTG, QEXP, QTY,RP                                     UFL04410
      REAL       SR, SRT, X(30)                                         UFL04420
      SRT      = 0.                                                     UFL04430
      QEXP     = 0.                                                     UFL04440
      SINT     = SIN(ANG / 57.2958)                                     UFL04450
      COST     = COS(ANG / 57.2958)                                     UFL04460
      RHOO     = RE + 0.015                                             UFL04470
      ASQUARE = (SINT * RHOO) ** 2                                      UFL04480
      IFIRST   = INDXFN  (H1, H, NMAX)                                  UFL04490
      QH1      = EXPINT (H1, H, X, IFIRST, NMAX)                        UFL04500
      ILAST    = INDXFN  (H2, H, NMAX)                                  UFL04510
C     PRINT *, IFIRST,ILAST                                             UFL04520
      QH2      = EXPINT (H2, H, X, ILAST, NMAX)                         UFL04530
      IF (H1.NE.0.015) GOTO 1200                                        UFL04540
      RP       = -RHOO * COST                                           UFL04550
      IF (RP.LE.0.) GOTO 1200                                           UFL04560
      RHOP     = RHOO * SINT                                            UFL04570
      HPERP    = RHOP - RE                                              UFL04580
      IF (HPERP.GT.0.) GOTO 1000                                        UFL04590
      HPERP    = 1.E-4                                                  UFL04600
 1000 CONTINUE                                                          UFL04610
      JP       = INDXFN  (HPERP, H, NMAX)                               UFL04620
      QHP      = EXPINT (HPERP, H, X, JP, NMAX)                         UFL04630
      X1       = QHP                                                    UFL04640
      HT1      = HPERP                                                  UFL04650
      DO 1100 I = JP, IFIRST                                            UFL04660
         X2    = X(I)                                                   UFL04670
         HT2   = H(I)                                                   UFL04680
         IF (I.EQ.IFIRST) THEN                                          UFL04690
            X2 = QH1                                                    UFL04700
            HT2 = H1                                                    UFL04710
         ENDIF                                                          UFL04720
C                                                                       UFL04730
         CALL TAYLOR (HT1,HT2,RE, ASQUARE, X1, X2, INTG, SLANTR)        UFL04740
C        ========================                                       UFL04750
         QEXP  = QEXP + INTG                                            UFL04760
         SRT   = SRT  + SLANTR                                          UFL04770
         X1    = X2                                                     UFL04780
         HT1   = HT2                                                    UFL04790
 1100 CONTINUE                                                          UFL04800
      QEXP     = 2. * QEXP                                              UFL04810
      SRT      = 2. * SRT                                               UFL04820
 1200 CONTINUE                                                          UFL04830
      X1       = QH1                                                    UFL04840
      HT1      = H1                                                     UFL04850
      DO 1300 I = IFIRST, ILAST                                         UFL04860
         X2    = X(I)                                                   UFL04870
         HT2   = H(I)                                                   UFL04880
         IF (I.EQ.ILAST) THEN                                           UFL04890
            X2 = QH2                                                    UFL04900
          HT2 = H2                                                      UFL04910
         ENDIF                                                          UFL04920
C                                                                       UFL04930
         CALL TAYLOR (HT1,HT2,RE, ASQUARE, X1, X2, INTG, SLANTR)        UFL04940
C        ======================                                         UFL04950
         QEXP  = QEXP + INTG                                            UFL04960
         SRT   = SRT  + SLANTR                                          UFL04970
         X1    = X2                                                     UFL04980
         HT1   = HT2                                                    UFL04990
 1300 CONTINUE                                                          UFL05000
      QTY      = QEXP                                                   UFL05010
      SR       = SRT                                                    UFL05020
      RETURN                                                            UFL05030
      END                                                               UFL05040
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C                                                                       UFL05050
      SUBROUTINE   PROFILE                                              UFL05060
C     **********************                                            UFL05070
C                                                                       UFL05080
      LOGICAL GRID                                                      UFL05090
      COMMON /ENVIRO/  HEIGHT(55),PRESSUR(55),TEMP(55),HUMIDTY(55),     UFL05100
     *                 VIS,HTZERO,PRZERO,WIND                           UFL05110
      COMMON /CALVALS/ AH(55),BAERO(55),EH(55),EOMUNIT(55)              UFL05120
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY                              UFL05130
      COMMON /LUNITS/  LUIN,LUERR,LUOUT                                 UFL05140
      DOUBLE PRECISION HT1                                              UFL05150
      VAPOR(T,P)=(1.0007+(3.46E-6*P))*6.1121*EXP(17.502*T/(240.97+T))   UFL05160
      STAR(T,E,P) = T*(1.0 + 0.378*E/(P - E))                           UFL05170
      ABSOLUT(E,T) = E/(4.651E-3*T)                                     UFL05180
      HT0 = HTZERO                                                      UFL05190
      PR0 = PRZERO                                                      UFL05200
      DO 1000 I = 1, NMAX                                               UFL05210
         PR1 = PRESSUR(I)                                               UFL05220
         TA  = TEMP(I)                                                  UFL05230
      ES = (1.0007 + (3.46E-6*PR1))*                                    UFL05240
     &     6.1121*EXP(17.502*TA/(240.97 + TA))                          UFL05250
      EA = HUMIDTY(I)*ES/100.0                                          UFL05260
      TA = TA + 273.15                                                  UFL05270
      TSTAR1 = STAR(TA,EA,PR1)                                          UFL05280
      IF (I.EQ.1) TSTAR0 = TSTAR1                                       UFL05290
      HT1 = HT0 + 29.286*ALOG(PR0/PR1)*(TSTAR1 + TSTAR0)*0.5            UFL05300
      IF (ABS(HT1).LT.0.1) HT1 = 0                                      UFL05310
      HEIGHT(I) = HT1                                                   UFL05320
          AH(I) = ABSOLUT(EA,TA)                                        UFL05330
          EOMUNIT(I) = 77.53*PR1/TA -0.043*EA + HT1/6.356776            UFL05340
         BAERO(I) = AEROSOL(HUMIDTY,WIND,VIS,HEIGHT,NMAX,I)             UFL05350
         B = 6.08 * (296.0/TA - 1.0)                                    UFL05360
         PN = PRESSUR(I) - EA                                           UFL05370
         EH(I) = (EA*EXP(B) + 2.E-3*PN)/1013.0                          UFL05380
         EH(I) = EH(I)*AH(I)*0.1                                        UFL05390
         HT0 = HT1                                                      UFL05400
         PR0 = PR1                                                      UFL05410
C        TSTAR0 = TSTAR1                                                UFL05420
 1000 CONTINUE                                                          UFL05430
      IF (HEIGHT(1).EQ.0.) GOTO 1200                                    UFL05440
      TA1 = TEMP(1) + 273.15                                            UFL05450
      PR1 = PRESSUR(1)                                                  UFL05460
      EA = VAPOR((TA1 - 273.15),PR1) * HUMIDTY(1)*0.01                  UFL05470
      TSTR1 = STAR(TA1,EA,PR1)                                          UFL05480
      TA = TA1 + .0065*HEIGHT(1)                                        UFL05490
      IF (PRZERO.EQ.PRESSUR(1).OR.HTZERO.EQ.0.) THEN                    UFL05500
         TSTR = TSTR1                                                   UFL05510
      ELSE                                                              UFL05520
         C = 14.643 * ALOG(PRZERO/PRESSUR(1))                           UFL05530
         A = (HTZERO - 2.*HEIGHT(1) + 2.*C*TSTR1) / (2. * C)            UFL05540
         B = TSTR1 * HTZERO / (2. * C)                                  UFL05550
         D = 1. - 4.*B/A**2                                             UFL05560
         IF (D .LT. 0.) D = 0.                                          UFL05570
         TSTR = A*(SQRT(D) - 1.0)/2.0                                   UFL05580
      ENDIF                                                             UFL05590
      PS = PRZERO * EXP(HTZERO/(29.286*TSTR))                           UFL05600
      A = HTZERO + 29.286*TSTR*ALOG(PRZERO/PS)                          UFL05610
      IF (A.NE.0.) TSTR = -HTZERO / 29.286 / ALOG(PRZERO/PS)            UFL05620
      A = PS * (TSTR - TA1) / (TSTR - 0.622*TA)                         UFL05630
      RHS = 100. * A / VAPOR((TA - 273.15),PS)                          UFL05640
      NMAX = NMAX + 1                                                   UFL05650
      DO 1100 I = NMAX,2,-1                                             UFL05660
         HEIGHT(I) = HEIGHT(I-1)                                        UFL05670
         AH(I) = AH(I-1)                                                UFL05680
         EOMUNIT(I) = EOMUNIT(I-1)                                      UFL05690
         EH(I) = EH(I-1)                                                UFL05700
         BAERO(I) = BAERO(I-1)                                          UFL05710
         PRESSUR(I) = PRESSUR(I-1)                                      UFL05720
         TEMP(I) = TEMP(I-1)                                            UFL05730
         HUMIDTY(I) = HUMIDTY(I-1)                                      UFL05740
 1100 CONTINUE                                                          UFL05750
      HEIGHT(1) = 0.                                                    UFL05760
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      A = HEIGHT(3) - HEIGHT(2)                                         UFL05770
      B = BAERO(3) / BAERO(2)                                           UFL05780
      BAERO(1) = BAERO(2) * B**(HEIGHT(2)/A)                            UFL05790
      B = EH(3) / EH(2)                                                 UFL05800
      EH(1) = EH(2) * B**(HEIGHT(2)/A)                                  UFL05810
      AH(1) = ABSOLUT(A,TA)                                             UFL05820
      EOMUNIT(1) = 77.53*PS/TA - 0.043*A                                UFL05830
      PRESSUR(1) = PS                                                   UFL05840
      TEMP(1) = TA - 273.15                                             UFL05850
      HUMIDTY(1) = RHS                                                  UFL05860
 1200 CONTINUE                                                          UFL05870
C                                                                       UFL05880
      CALL PRINTI (HTZERO,HUMIDTY,PRESSUR,PRZERO,TEMP,WIND,             UFL05890
     &             VIS,HEIGHT,NMAX,LUERR)                               UFL05900
C     ====================                                              UFL05910
      RETURN                                                            UFL05920
      END                                                               UFL05930
C                                                                       UFL05940
      SUBROUTINE TAYLOR (HT1,HT2,RE,ASQUARE, X1, X2, INTG, SLANTR)      UFL05950
C     **************************                                        UFL05960
C                                                                       UFL05970
      DOUBLE PRECISION RHO1,RHO2,RE,RBAR,RHOB,ASQUARE,TEMP              UFL05980
     *R1,R2,DELH,SLANTR,XB,HT1,HT2                                      UFL05990
      REAL    ALPHA, FBAR, FDEL2BA, FDEL4BA                             UFL06000
      REAL    INTG, IT1, IT2, IT3                                       UFL06010
      REAL     XR,X1,X2                                                 UFL06020
      DELH      = HT2 - HT1                                             UFL06030
      RHO2      = RE + HT2                                              UFL06040
      RHO1      = RE + HT1                                              UFL06050
      TEMP = RHO1**2 - ASQUARE                                          UFL06060
      IF (TEMP .LT. 1.0) PRINT '('' AT R1 '',3G15.7)',RHO1,ASQUARE,TEMP UFL06070
      IF (TEMP .GT. 0.) THEN                                            UFL06080
        R1 = SQRT (TEMP)                                                UFL06090
      ELSE                                                              UFL06100
        R1 = 0.                                                         UFL06110
      ENDIF                                                             UFL06120
      TEMP = RHO2**2 - ASQUARE                                          UFL06130
      IF (TEMP .LT. 1.0) PRINT '('' AT R2 '',3G15.7)',RHO2,ASQUARE,TEMP UFL06140
      IF (TEMP .GT. 0.) THEN                                            UFL06150
        R2 = SQRT (TEMP)                                                UFL06160
      ELSE                                                              UFL06170
        R2 = 0.                                                         UFL06180
      ENDIF                                                             UFL06190
      SLANTR    = R2 - R1                                               UFL06200
      RHOB      = 0.5 * (RHO1 + RHO2)                                   UFL06210
      RBAR      = SQRT (RHOB**2 - ASQUARE)                              UFL06220
      XB        = SQRT (X1 * X2)                                        UFL06230
      XR =  X2/X1                                                       UFL06240
      ALPHA     = ALOG(XR) / (RHO2 - RHO1)                              UFL06250
      FBAR      = RHOB * XB / RBAR                                      UFL06260
      FDEL2BA   = ALPHA**2 * FBAR - ASQUARE * XB * (2 * ALPHA - 3 *RHOB UFL06270
     *            / RBAR**2)/ RBAR**3                                   UFL06280
      FDEL4BA   = 5 * RHOB * (3 + 4 * ALPHA * RHOB - 7 * RHOB**2/RBAR**2 UFL06290
     *            ) / RBAR**2                                           UFL06300
      FDEL4BA   = 3 * (ALPHA * (4 + 6 * ALPHA * RHOB) - FDEL4BA) /      UFL06310
     *            RBAR**2                                               UFL06320
      FDEL4BA   = ALPHA**4 * FBAR - ASQUARE * XB * (4 * ALPHA**3 -      UFL06330
     *            FDEL4BA) / RBAR**3                                    UFL06340
      IT1       = FBAR * DELH                                           UFL06350
      IT2       = FDEL2BA * DELH**3 / 24                                UFL06360
      IT3       = FDEL4BA * DELH**5 / 1920                              UFL06370
      INTG      = IT1 + IT2 + IT3                                       UFL06380
      RETURN                                                            UFL06390
      END                                                               UFL06400
C                                                                       UFL06410
      REAL FUNCTION FNMDTD (X, Y, R, A, B, EX, EY, C)                   UFL06420
C     **********************                                            UFL06430
C                                                                       UFL06440
      REAL EX,EY,FF,X                                                   UFL06450
      DATA SQ7I /0.377964473/                                           UFL06460
      IF (C .GT. 1.0) THEN                                              UFL06470
         FF = C * (R * EX / X) * (R * EY /Y) * 0.3927                   UFL06480
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         IF (FF .GT. 80.0) FF = 80.0                                    UFL06490
         FNMDTD = A + B * R * SQ7I * EXP(FF) / SQRT(X * Y / C)          UFL06500
      ELSE                                                              UFL06510
         TX = SQRT(1.0 + (R * EX / X)**2)                               UFL06520
         TY = SQRT(1.0 + (R * EY / Y)**2)                               UFL06530
         FNMDTD = A + B * R * SQRT (TX * TY) / SQRT (X * Y)             UFL06540
      ENDIF                                                             UFL06550
      RETURN                                                            UFL06560
      END                                                               UFL06570
C                                                                       UFL06580
      REAL FUNCTION FNERAD (HEIGHT, EOMUNIT, NMAX)                      UFL06590
C     ********************                                              UFL06600
C                                                                       UFL06610
      INTEGER    NMAX                                                   UFL06620
      REAL       EOMUNIT(55), HEIGHT(55), S1, S2, S3, S4, SLOPE         UFL06630
      S1   = 0.                                                         UFL06640
      S2   = 0.                                                         UFL06650
      S3   = 0.                                                         UFL06660
      S4   = 0.                                                         UFL06670
      DO 1000 I = 1, NMAX                                               UFL06680
          H = HEIGHT(I)                                                 UFL06690
          EM = EOMUNIT(I)                                               UFL06700
          S1 = S1 + H                                                   UFL06710
          S2 = S2 + H*H                                                 UFL06720
          S3 = S3 + EM                                                  UFL06730
          S4 = S4 + EM*H                                                UFL06740
 1000 CONTINUE                                                          UFL06750
      FNERAD = 1000.*(NMAX*S2 - S1*S1)/(NMAX*S4 - S3*S1)                UFL06760
      RETURN                                                            UFL06770
      END                                                               UFL06780
C                                                                       UFL06790
      SUBROUTINE PERFORM                                                UFL06800
C     ******************                                                UFL06810
C                                                                       UFL06820
      COMMON /PERFPNT/ PERFR(3,5,15)                                    UFL06830
      COMMON /COMPPER/ RA(18,15),TRANS(18,15)                           UFL06840
      COMMON /COMPPNT/ PREDHT(15)                                       UFL06850
      COMMON /FLIRPAR/ A1(3),A2(3),EX(3),EY(3),CRIT(3)                  UFL06860
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY                              UFL06870
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT              UFL06880
      REAL TRANDUM(18)                                                  UFL06890
      REAL SNRPDET(18)                                                  UFL06900
      REAL MDTD                                                         UFL06910
      REAL RADUM(18)                                                    UFL06920
         DO  1400 J=1, NUMHT                                            UFL06930
            DO 1000 K=1, NRAY                                           UFL06940
               RADUM(K)   = RA(K,J)                                     UFL06950
               TRANDUM(K) = TRANS(K,J)                                  UFL06960
 1000       CONTINUE                                                   UFL06970
            DO 1300 M=1,NUMTGT                                          UFL06980
              DO 1200 L=1,3                                             UFL06990
                IR = 1                                                  UFL07000
 1100           CONTINUE                                                UFL07010
                  DELT = TDT(M)                                         UFL07020
                  TI = DELT * TRANDUM(IR)                               UFL07030
                  R    = RADUM(IR)                                      UFL07040
                  MDTD = FNMDTD                                         UFL07050
     &            (TGTX(M),TGTY(M),R,A1(L),A2(L),EX(L),EY(L),CRIT(L))   UFL07060
                  SNRPDET(IR) = ALOG10(TI/MDTD)                         UFL07070
                  SN RPDET(IR) = ALOG10(TI/MDTD)                        UFL07080
                  IF (SNRPDET(IR) .LT. 0.0) GOTO 1150                   UFL07090
                  IR = IR + 1                                           UFL07100
                  IF (IR .LE. NRAY) GOTO 1100                           UFL07110
 1150           CONTINUE                                                UFL07120
                IF (IR .LE. 1) SR = 0.0                                 UFL07130
                IF (IR .GE. 2 .AND. IR .LE. NRAY) THEN                  UFL07140
                   SR = FNINTRP (0.0, RADUM, SNRPDET, IR)               UFL07150
                ENDIF                                                   UFL07160
                IF (IR .GT. NRAY) SR = RADUM(NRAY)                      UFL07170
                IF (SR .LT. PREDHT(J)) SR = 0.0                         UFL07180
                PERFR(L,M,J) = SR                                       UFL07190
 1200         CONTINUE                                                  UFL07200
```

```
 1300       CONTINUE                                                      UFL07210
 1400    CONTINUE                                                         UFL07220
      RETURN                                                              UFL07230
      END                                                                 UFL07240
C                                                                         UFL07250
      SUBROUTINE PRINTI (ZSFC,RH,P,PSFC,T,WNDSFC,VISFC,Z,NLEV,Q)          UFL07260
C     **********************                                              UFL07270
C                                                                         UFL07280
      CHARACTER*24 LOCAT1,SNAME1,DTG1                                     UFL07290
      INTEGER Q                                                           UFL07300
      DIMENSION RH(NLEV),P(NLEV),T(NLEV),Z(NLEV)                          UFL07310
      LOCAT1 = 'FROM UFLR'                                                UFL07320
      DTG1 = 'SOUNDING FILE FOR PREOS'                                    UFL07330
      WRITE (Q,100)                                                       UFL07340
      WRITE (Q,100)                                                       UFL07350
      WRITE (Q,100)                                                       UFL07360
      WRITE (Q,200) LOCAT1                                                UFL07370
      WRITE (Q,200) DTG1                                                  UFL07380
      WRITE (Q,100)                                                       UFL07390
      WRITE (Q,300)                                                       UFL07400
      WRITE (Q,100)                                                       UFL07410
      WRITE (Q,100)                                                       UFL07420
      WRITE (Q,400) WNDSFC                                                UFL07430
      WRITE (Q,500) VISFC                                                 UFL07440
      WRITE (Q,100)                                                       UFL07450
      WRITE (Q,100)                                                       UFL07460
      WRITE (Q,100)                                                       UFL07470
      WRITE (Q,600) ZSFC                                                  UFL07480
      WRITE (Q,700) PSFC                                                  UFL07490
      WRITE (Q,100)                                                       UFL07500
      WRITE (Q,100)                                                       UFL07510
      WRITE (Q,100)                                                       UFL07520
      WRITE (Q,100)                                                       UFL07530
      WRITE (Q,100)                                                       UFL07540
      WRITE (Q,800)                                                       UFL07550
      WRITE (Q,900)                                                       UFL07560
      DO 1 I=1,NLEV                                                       UFL07570
      WRITE (Q,1000) I,Z(I),P(I),T(I),RH(I)                               UFL07580
1     CONTINUE                                                            UFL07590
      RETURN                                                              UFL07600
100   FORMAT ('**********')                                               UFL07610
200   FORMAT (A24)                                                        UFL07620
300   FORMAT ('M',3X,'E',4X,'U')                                          UFL07630
400   FORMAT (F16.1,' METERS PER SECOND FOR WIND VELOCITY')               UFL07640
500   FORMAT (F16.1,' KILOMETERS FOR HORIZONTAL SURFACE VISIBILITY')      UFL07650
600   FORMAT (F16.1,' METERS RADIOSONDE LAUNCH HEIGHT')                   UFL07660
700   FORMAT (F16.1,' MILLIBARS RADIOSONDE LAUNCH PRESSURE')              UFL07670
800   FORMAT (2X,'I',4X,'Z',18X,'P',8X,'T',5X,'RH')                       UFL07680
900   FORMAT ('1***5***10***15***20***25***30***35***40***45***50')      UFL07690
1000  FORMAT (1X,I2,1X,F7.1,13X,F6.1,3X,F5.1,2X,F5.1)                     UFL07700
      END                                                                 UFL07710
C                                                                         UFL07720
C                                                                         UFL07730
      BLOCK DATA UNITS                                                    UFL07740
C     ****************                                                    UFL07750
      COMMON /LUNITS/ LUIN, LUERR, LUOUT                                  UFL07760
      DATA LUIN/2/, LUERR/3/, LUOUT/10/                                   UFL07770
      END                                                                 UFL07780
C                                                                         UFL07790
      BLOCK DATA BLCKDAT                                                  UFL07800
C     ******************                                                  UFL07810
C                                                                         UFL07820
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY                                UFL07830
      COMMON /SUBAERO/ HT(10),RHCT(6,10),RHC5(6,10),VCT(6,10),VC5(6,10)   UFL07840
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT                UFL07850
      COMMON /COMPPNT/ PREDHT(15)                                         UFL07860
      DATA NRAY    / 18/                                                  UFL07870
      DATA NUMHT   / 15/                                                  UFL07880
      DATA HT      /0.0, 0.25, 0.5, 0.75, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0/  UFL07890
      DATA ANGLE   /0.5,25.,45., 62., 82., 85., 86., 87., 87.5, 88.,     UFL07900
     *               88.5, 89., 89.25, 89.5, 89.65, 89.8, 89.9, 90.1/    UFL07910
      DATA PREDHT / .1524,  .3048,  .4572,  .6096,  .7620,  .9144,        UFL07920
```

```
*     1.0668, 1.2192, 1.5240, 2.2860, 3.0480, 4.5720, 6.0960,      UFL07930
*     7.6200, 9.1440/                                              UFL07940
 DATA RHCT   /                                                     UFL07950
* -2.45940E+00,  2.31733E-01,  -8.42434E-03,  1.49617E-04,         UFL07960
* -1.29971E-06,  4.43136E-09,  -1.86198E+00,  1.75467E-01,         UFL07970
* -6.37961E-03,  1.13312E-04,  -9.84377E-07,  3.35632E-09,         UFL07980
* -1.43224E+00,  1.34935E-01,  -4.90491E-03,  8.70970E-05,         UFL07990
* -7.56429E-07,  2.57831E-09,  -1.11195E+00,  1.04754E-01,         UFL08000
* -3.80769E-03,  6.76104E-05,  -5.87156E-07,  2.00119E-09,         UFL08010
* -8.71668E-01,  8.21378E-02,  -2.98632E-03,  5.30380E-05,         UFL08020
* -4.60703E-07,  1.57051E-09,  -5.72775E-01,  5.39713E-02,         UFL08030
* -1.96234E-03,  3.48527E-05,  -3.02745E-07,  1.03202E-09,         UFL08040
* -4.15996E-01,  3.91913E-02,  -1.42486E-03,  2.53035E-05,         UFL08050
* -2.19755E-07,  7.48903E-10,  -3.30701E-01,  3.11432E-02,         UFL08060
* -1.13193E-03,  2.00957E-05,  -1.74480E-07,  5.94448E-10,         UFL08070
* -2.83120E-01,  2.66638E-02,  -9.69172E-04,  1.72068E-05,         UFL08080
* -1.49401E-07,  5.09007E-10,  -2.46425E-01,  2.32047E-02,         UFL08090
* -8.43381E-04,  1.49715E-05,  -1.29969E-07,  4.42687E-10/         UFL08100
 DATA VCT  /                                                       UFL08110
*  3.86190E-02,  1.31683E-01,  -5.17218E-02,  1.06845E-02,         UFL08120
* -8.16258E-04,  2.32638E-05,   6.62653E-02,  1.31835E-01,         UFL08130
* -5.19959E-02,  1.06615E-02,  -8.12327E-04,  2.30867E-05,         UFL08140
*  1.02555E-01,  1.29651E-01,  -5.13495E-02,  1.04779E-02,         UFL08150
* -7.97276E-04,  2.26217E-05,   1.48991E-01,  1.24613E-01,         UFL08160
* -4.94785E-02,  1.00658E-02,  -7.65523E-04,  2.17177E-05,         UFL08170
*  2.04277E-01,  1.19998E-01,  -4.77106E-02,  9.63302E-03,         UFL08180
* -7.30607E-04,  2.06831E-05,   3.41840E-01,  1.06789E-01,         UFL08190
* -4.26887E-02,  8.46758E-03,  -6.37369E-04,  1.79116E-05,         UFL08200
*  5.03343E-01,  8.60082E-02,  -3.45636E-02,  6.75406E-03,         UFL08210
* -5.05127E-04,  1.41102E-05,   6.60760E-01,  6.11932E-02,         UFL08220
* -2.46867E-02,  4.78597E-03,  -3.57129E-04,  9.95953E-06,         UFL08230
*  7.85007E-01,  4.19189E-02,  -1.68488E-02,  3.20705E-03,         UFL08240
* -2.37354E-04,  6.57239E-06,   9.28120E-01,  1.42177E-02,         UFL08250
* -5.78919E-03,  1.10629E-03,  -8.23232E-05,  2.29040E-06/         UFL08260
 DATA RHC5  /                                                      UFL08270
* -6.94393E+00,  6.59361E-01,  -2.39796E-02,  4.26102E-04,         UFL08280
* -3.70361E-06,  1.26383E-08,  -6.00926E+00,  5.70437E-01,         UFL08290
* -2.07531E-02,  3.68912E-04,  -3.20778E-06,  1.09499E-08,         UFL08300
* -5.43463E+00,  5.15297E-01,  -1.87411E-02,  3.33003E-04,         UFL08310
* -2.89403E-06,  9.87226E-09,  -4.95916E+00,  4.69858E-01,         UFL08320
* -1.70866E-02,  3.03556E-04,  -2.63765E-06,  8.99549E-09,         UFL08330
* -4.65080E+00,  4.40152E-01,  -1.59982E-02,  2.84052E-04,         UFL08340
* -2.46658E-06,  8.40612E-09,  -4.27454E+00,  4.03999E-01,         UFL08350
* -1.46790E-02,  2.60517E-04,  -2.26116E-06,  7.70140E-09,         UFL08360
* -4.04180E+00,  3.81728E-01,  -1.38689E-02,  2.46133E-04,         UFL08370
* -2.13632E-06,  7.27600E-09,  -3.92516E+00,  3.70591E-01,         UFL08380
* -1.34638E-02,  2.38915E-04,  -2.07329E-06,  7.05968E-09,         UFL08390
* -3.85834E+00,  3.64325E-01,  -1.32402E-02,  2.35020E-04,         UFL08400
* -2.04011E-06,  6.94847E-09,  -3.81896E+00,  3.60510E-01,         UFL08410
* -1.31008E-02,  2.32530E-04,  -2.01835E-06,  6.87378E-09/         UFL08420
 DATA VC5  /                                                       UFL08430
*  4.23048E-01,  2.80934E-02,  -2.55180E-05,  1.16505E-03,         UFL08440
* -1.31793E-04,  4.53123E-06,   4.99859E-01,  2.23627E-02,         UFL08450
*  6.78339E-04,  9.19860E-04,  -1.09556E-04,  3.85300E-06,         UFL08460
*  5.75766E-01,  2.00378E-02,  -1.21409E-04,  9.10420E-04,         UFL08470
* -1.02268E-04,  3.49763E-06,   6.48294E-01,  1.82058E-02,         UFL08480
* -5.62497E-04,  8.08765E-04,  -8.77535E-05,  2.96501E-06,         UFL08490
*  7.13230E-01,  1.67557E-02,  -1.07838E-03,  7.35784E-04,         UFL08500
* -7.57756E-05,  2.50340E-06,   8.19816E-01,  9.58017E-03,         UFL08510
* -4.06924E-04,  4.41230E-04,  -4.73987E-05,  1.58518E-06,         UFL08520
*  8.94962E-01,  6.05276E-03,  -4.75565E-04,  2.93650E-04,         UFL08530
* -2.98501E-05,  9.69720E-07,   9.43653E-01,  2.78353E-03,         UFL08540
*  7.26492E-05,  1.05978E-04,  -1.30613E-05,  4.63702E-07,         UFL08550
*  9.68667E-01,  1.65996E-03,  -1.01433E-04,  9.07833E-05,         UFL08560
* -9.61713E-06,  3.08901E-07,   9.90584E-01, -7.77846E-05,         UFL08570
*  1.56731E-04, -1.99247E-06,  -6.92168E-07,  3.13041E-08/         UFL08580
 END                                                               UFL08590
C                                                                  UFL08600
 BLOCK DATA CLASDAT                                                UFL08610
C     *************                                                UFL08620
 COMMON /FLIRPAR/ A1(3),A2(3),EX(3),EY(3),CRIT(3)                  UFL08630
 DATA CRIT/  1.0,     67.0,    400.0/                              UFL08640
```

APPENDIX 2

COMPUTER PROGRAM UFLRATM

```
C                                                                       UFL00010
C     PROGRAM UFLRATM                                                   UFL00020
C     ===============                                                   UFL00030
C                                                                       UFL00040
C     *** PURPOSE ***                                                   UFL00050
C     THE FOLLOWING PROGRAM IS USED TO SIMULATE RADIOSONDE PROFILES BY  UFL00060
C     TAKING  ACTUAL PRESSURE, TEMPERATURE  AND  RELATIVE HUMIDITY FOR  UFL00070
C     HEIGHT  LEVELS  FROM  0 TO  28,000  FT., AND DITHERING THESE VA-  UFL00080
C     LUES EVERY 1,000 FT. USING A GAUSSIAN RANDOM NUMBER GENERATOR.    UFL00090
C                                                                       UFL00100
C     *** VARIABLE DEFINITIONS ***                                      UFL00110
C                                                                       UFL00120
C       NREP = THE DESIRED NUMBER OF REPLICATIONS                       UFL00130
C     SIGMAP = STANDARD DEV. APPLIED TO PRESSURE DATA GENERATION        UFL00140
C     SIGMAT = STANDARD DEV. APPLIED TO TEMPERATURE DATA GENERATION     UFL00150
C     SIGMARH= STANDARD DEV. APPLIED TO REL.HUMIDITY DATA GENERATION    UFL00160
C          R = GAUSSIAN RANDOM DEVIATE GENERATOR                        UFL00170
C         PR = DITHERED PRESSURE     AT A SPECIFIC ELEVATION            UFL00180
C         TE = DITHERED TEMPERATURE  AT A SPECIFIC ELEVATION            UFL00190
C         RE = DITHERED REL HUMIDITY AT A SPECIFIC ELEVATION            UFL00200
C      NDATA = NUMBER OF HEIGHT LEVELS                                  UFL00210
C                                                                       UFL00220
C     *** VARIABLE DECLARATION ***                                      UFL00230
C                                                                       UFL00240
      REAL*8 DSEED                                                      UFL00250
      INTEGER NREP,COUNT, IC, NDATA,N,NR,I                              UFL00260
C                                                                       UFL00270
      REAL SIGMAP,SIGMAT,SIGMAHR,PR(29),TE(29),RE(29),R(120),PRESSO,    UFL00280
     *TEMP,RELH,HEIGHT,PRES                                             UFL00290
      DATA NREP/10/,COUNT/0/,NDATA/29/,N/0/,SIGMAP/1.5/,SIGMAT/4./,     UFL00300
     *SIGMARH/8/                                                        UFL00310
C                                                                       UFL00320
C     *** MAIN PROGRAM ***                                              UFL00330
C                                                                       UFL00340
      OPEN(UNIT=10, FILE='CAL1 PRE', STATUS='OLD')                      UFL00350
      OPEN(UNIT=11, FILE='CAL1F OUT ', STATUS='NEW')                    UFL00360
      DSEED = 123457.D0                                                 UFL00370
      DO 10 N = 1,NREP                                                  UFL00380
        DO 5 J= 1,NDATA                                                 UFL00390
  5       READ (10,*) PR(J),TE(J),RE(J)                                 UFL00400
        COUNT = COUNT + 1                                               UFL00410
        I  = 1                                                          UFL00420
        IC = 0                                                          UFL00430
        HEIGHT= 0.0                                                     UFL00440
C       'INTRODUCE HERE THE ACTUAL PRESSURE AT SEA LEVEL= PRESSO'       UFL00450
        PRESSO= 1015.4                                                  UFL00460
        WRITE(11,200) COUNT                                             UFL00470
 200    FORMAT(' ',' RESULTS OF THE REPLICATION #',I3 )                 UFL00480
        WRITE(11,400)                                                   UFL00490
 400    FORMAT('    ================================          ',/,      UFL00500
     *          '                                              ',/,     UFL00510
     *          '   HEIGHT   PRESSURE  TEMPERATURE    REL HUMD',/,     UFL00520
     *          '                                              ')       UFL00530
        NR = 116                                                        UFL00540
        CALL GGNML (DSEED,NR,R)                                         UFL00550
        DO 20 IC = 1, NDATA                                             UFL00560
           PRES = PR(IC) + SIGMAP * R(2*I - 1)                          UFL00570
           TEMP = TE(IC) + SIGMAT * R(2*I)                              UFL00580
           RELH = RE(IC) + SIGMARH* R(2*I + 1)                          UFL00590
           I  = I  + 2                                                  UFL00600
           IF(RELH .GT. 100.) RELH =  98.0                              UFL00610
           IF(RELH .LT.  0.0) RELH =   2.0                              UFL00620
           IF(PRES .GT. PRESSO) PRES = PR(IC) - 1.0                     UFL00630
           WRITE (11,600) HEIGHT, PRES, TEMP, RELH                      UFL00640
 600       FORMAT(1X,F7.1,5X,F6.1,7X,F6.1,8X,F5.1)                      UFL00650
           HEIGHT = HEIGHT + 1000.0                                     UFL00660
           PRESSO = PRES                                                UFL00670
  20    CONTINUE                                                        UFL00680
        REWIND 10                                                       UFL00690
  10  CONTINUE                                                          UFL00700
      STOP                                                              UFL00710
      END                                                               UFL00720
```

APPENDIX 3

UNDITHERED RADIOSONDE ATMOSPHERIC PROFILES

FILE: CAL1		PRE
1016.3	22.6	86
981.6	21.9	90
950.2	21.8	37
916.5	20.3	38
880.7	19.1	37
851.1	17.3	35
824.0	16.2	32
795.3	14.4	31
766.7	12.1	27
739.3	9.5	25
709.8	8.3	19
683.9	5.7	15
658.8	4.7	5
636.4	2.4	7
610.1	-0.4	6
590.4	-2.5	10
565.0	-5.2	11
544.7	-7.0	4
525.0	-8.2	7
505.4	-10.8	8
486.3	-12.8	11
464.2	-15.4	11
446.7	-17.2	6
428.8	-19.0	8
411.1	-21.8	41
395.5	-24.3	50
378.3	-27.1	48
362.7	-29.7	42
347.6	-32.0	58

FILE: CAL2		PRE
1016.8	16.3	95
983.7	18.8	63
946.5	20.7	36
914.5	20.6	30
883.8	18.6	37
852.0	17.1	36
821.7	15.2	32
793.7	13.4	32
764.3	11.1	34
737.9	8.9	40
709.4	6.6	39
683.1	4.6	36
659.3	2.7	29
635.9	2.2	8
611.0	-0.3	8
587.8	-3.0	11
565.7	-4.8	5
545.1	-7.0	4
522.3	-9.5	13
502.9	-11.8	14
483.8	-14.1	18
463.9	-16.9	20
445.9	-18.2	18
428.3	-20.3	8
409.5	-23.1	23
393.9	-25.3	47
377.5	-26.6	32
362.2	-29.1	29
346.3	-31.6	57

FILE: CAL3		PRE
1013.5	21.7	91
978.7	19.8	85
944.9	21.0	35
911.4	21.2	28
880.5	19.3	30
849.3	17.4	31
821.1	15.7	27
790.8	13.0	30
764.3	10.5	35
732.3	7.6	42
708.0	5.9	47
682.1	3.6	45
658.2	2.4	32
633.4	0.5	31
609.8	-1.3	16
586.3	-3.6	20
563.8	-5.8	21
542.6	-8.1	21
522.2	-9.8	19
501.0	-11.6	12
481.0	-14.1	15
461.4	-16.5	14
443.1	-18.8	16
425.3	-21.2	64
407.9	-23.4	40
391.8	-25.9	16
375.2	-28.6	11
359.3	-30.2	4
344.7	-32.7	5

FILE: CAL4		PRE
1017.0	14.9	95
981.6	15.1	89
947.2	22.2	18
914.9	20.9	30
882.2	19.8	25
851.8	18.4	18
823.5	16.0	22
794.5	13.3	26
766.1	10.4	37
738.2	7.9	38
710.5	5.5	39
686.9	4.0	23
658.4	2.1	18
634.4	0.6	14
611.1	-0.5	14
588.1	-3.2	15
566.3	-5.5	17
544.1	-7.3	42
522.6	-9.8	34
503.1	-12.4	33
482.4	-14.6	31
463.2	-16.8	32
445.8	-19.2	32
427.5	-20.9	15
415.0	-22.6	5
391.8	-25.9	2
377.6	-27.2	2
362.2	-29.4	3
346.1	-31.5	2

FILE: CAL5		PRE
1015.8	14.3	100
979.7	21.1	35
948.6	23.2	30
913.6	21.6	28
884.2	20.5	23
852.2	18.8	26
819.5	15.8	30
792.0	13.4	32
764.5	10.7	36
737.9	8.2	39
709.8	6.6	24
684.9	4.6	19
660.1	2.7	24
635.3	1.2	16
610.2	-1.0	16
587.0	-2.4	30
565.7	-4.6	37
543.7	-6.9	28
523.7	-9.2	20
503.3	-11.6	41
480.6	-14.2	10
464.2	-15.5	19
445.8	-17.8	49
428.3	-20.3	34
410.1	-22.5	8
394.1	-24.6	6
376.7	-27.1	8
362.2	-29.6	34
346.7	-31.6	53

FILE: CAL6		PRE
1014.8	14.6	98
979.9	19.8	46
949.3	21.6	38
913.4	21.9	20
882.2	20.4	23
851.4	18.4	33
821.3	16.1	30
792.8	13.6	31
764.1	11.3	31
736.6	8.4	39
709.3	5.8	40
684.2	4.7	9
658.0	1.8	19
634.2	0.0	6
609.5	-1.9	6
586.4	-3.4	5
564.8	-5.5	5
543.1	-7.2	12
521.9	-9.5	26
501.7	-11.4	27
482.6	-13.7	28
463.2	-16.6	49
443.9	-18.9	68
426.4	-20.9	74
409.1	-22.5	81
392.1	-24.8	81
375.7	-27.3	82
360.9	-29.1	68
345.7	-31.0	45

FILE: CAL7		PRE
1017.5	15.1	99
984.0	14.6	80
948.1	19.6	33
915.4	18.5	38
882.0	17.2	34
853.0	15.8	34
822.7	14.4	35
793.4	12.0	39
765.4	9.2	45
736.1	7.0	46
708.7	4.6	50
681.9	1.8	44
657.4	0.0	29
631.7	-1.3	36
610.1	-2.5	16
586.0	-4.8	24
563.9	-7.5	28
543.1	-9.6	56
521.2	-11.0	85
500.4	-13.1	87
481.8	-14.9	85
462.4	-16.5	80
443.0	-17.3	52
425.2	-19.8	55
408.2	-22.1	50
392.6	-24.6	54
376.4	-26.8	46
359.7	-29.3	51
345.3	-31.9	55

FILE: CAL8		PRE
1018.6	15.1	92
984.0	13.5	86
949.3	19.7	27
915.4	18.2	31
883.3	16.3	46
852.0	15.1	34
821.5	13.1	37
793.4	11.1	43
765.4	8.9	38
734.4	6.2	45
709.3	4.1	52
683.2	1.8	49
657.4	-0.9	54
633.6	-2.7	34
609.3	-3.8	62
586.3	-4.4	78
563.9	-7.0	85
541.7	-8.6	81
520.7	-10.6	74
500.6	-12.3	56
480.8	-13.8	24
462.4	-16.0	41
444.4	-18.4	42
425.6	-20.9	44
408.5	-22.7	25
392.4	-25.2	17
376.0	-27.8	23
359.8	-30.3	39
345.7	-32.4	27

APPENDIX 4

DITHERED RADIOSONDE ATMOSPHERIC PROFILES

FILE: CAL1A

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.0	91.8
1000.0	984.1	20.2	98.0
2000.0	953.4	21.5	19.8
3000.0	916.4	19.3	31.6
4000.0	877.3	18.8	33.8
5000.0	851.5	18.6	30.6
6000.0	822.1	14.5	36.4
7000.0	790.7	15.6	30.6
8000.0	767.7	13.0	26.2
9000.0	740.3	8.5	25.1
10000.0	711.0	8.9	18.7
11000.0	684.1	5.9	19.8
12000.0	663.0	3.0	2.0
13000.0	639.9	1.5	13.1
14000.0	615.1	1.3	2.0
15000.0	592.1	-1.3	18.5
16000.0	567.9	-4.0	9.0
17000.0	541.9	-6.0	10.6
18000.0	526.2	-9.2	2.0
19000.0	505.8	-11.6	3.0
20000.0	488.8	-13.5	27.2
21000.0	462.0	-15.3	2.0
22000.0	443.0	-17.3	6.8
23000.0	427.4	-19.7	2.0
24000.0	409.5	-22.1	30.9
25000.0	399.3	-23.8	47.5
26000.0	380.5	-26.3	50.1
27000.0	363.2	-28.6	57.5
28000.0	346.0	-31.2	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.0	99.0
1000.0	980.9	22.9	86.3
2000.0	946.4	20.9	54.8
3000.0	919.3	20.2	31.4
4000.0	884.1	20.8	37.5
5000.0	851.3	19.4	30.8
6000.0	819.6	17.5	23.1
7000.0	798.5	13.2	33.9
8000.0	768.5	12.2	34.2
9000.0	738.6	9.3	27.2
10000.0	709.8	9.3	7.3
11000.0	686.0	6.7	16.2
12000.0	655.8	6.0	2.0
13000.0	639.3	0.3	2.0
14000.0	610.0	-0.3	1.7
15000.0	591.7	-3.4	15.2
16000.0	562.9	-4.9	20.1
17000.0	543.1	-5.6	2.7
18000.0	526.7	-9.1	9.7
19000.0	507.6	-10.3	0.5
20000.0	491.1	-14.8	9.0
21000.0	464.3	-15.9	2.0
22000.0	444.6	-18.4	21.0
23000.0	429.7	-18.4	12.3
24000.0	413.7	-21.9	45.0
25000.0	395.7	-23.6	33.5
26000.0	379.9	-27.4	46.7
27000.0	367.8	-29.8	45.2
28000.0	347.2	-30.9	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.4	22.8	86.9
1000.0	985.3	22.5	87.5
2000.0	952.8	21.0	25.3
3000.0	915.3	20.3	50.8
4000.0	878.5	19.8	36.2
5000.0	852.6	17.5	39.4
6000.0	825.2	15.1	14.8
7000.0	793.3	15.2	35.5
8000.0	768.4	10.5	28.0
9000.0	739.4	11.1	31.1
10000.0	707.3	8.2	9.0
11000.0	684.0	6.1	17.5
12000.0	659.7	3.2	25.9
13000.0	634.3	3.8	3.2
14000.0	613.4	-1.6	2.0
15000.0	592.0	-3.1	9.1
16000.0	566.9	-5.7	26.5
17000.0	540.6	-6.3	2.0
18000.0	531.4	-10.1	11.0
19000.0	505.2	-11.0	12.0
20000.0	484.5	-13.2	13.5
21000.0	468.1	-15.5	17.5
22000.0	445.7	-17.8	1.9
23000.0	430.2	-16.9	17.7
24000.0	406.9	-22.7	54.2
25000.0	397.4	-23.7	54.7
26000.0	379.5	-28.2	42.3
27000.0	362.4	-30.6	28.2
28000.0	350.0	-32.4	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.5	79.5
1000.0	978.2	21.8	93.3
2000.0	949.2	22.3	47.8
3000.0	915.4	21.0	28.2
4000.0	880.0	19.7	32.4
5000.0	854.9	17.7	23.7
6000.0	826.9	15.9	33.6
7000.0	792.3	12.9	45.4
8000.0	768.0	12.0	30.8
9000.0	737.5	8.6	25.7
10000.0	709.8	9.4	27.1
11000.0	686.0	7.1	3.4
12000.0	655.1	4.5	2.0
13000.0	640.2	2.2	12.3
14000.0	610.1	-0.1	6.8
15000.0	586.3	-2.4	2.0
16000.0	562.6	-4.1	1.8
17000.0	543.9	-5.5	8.2
18000.0	523.3	-8.8	14.8
19000.0	503.8	-13.1	9.8
20000.0	485.0	-12.8	11.4
21000.0	465.7	-15.1	5.1
22000.0	451.5	-18.3	0.4
23000.0	429.3	-18.7	4.2
24000.0	411.4	-22.2	42.4
25000.0	397.3	-25.6	59.8
26000.0	379.6	-27.1	57.7
27000.0	361.2	-30.9	50.0
28000.0	347.4	-31.2	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	91.8
1000.0	981.7	23.4	77.4
2000.0	950.5	21.1	26.8
3000.0	910.7	19.2	41.2
4000.0	883.9	18.9	40.8
5000.0	855.4	17.1	37.0
6000.0	822.5	16.2	49.4
7000.0	793.1	14.2	32.5
8000.0	768.1	11.8	19.1
9000.0	742.2	7.8	20.4
10000.0	712.4	9.7	28.2
11000.0	682.7	6.3	11.4
12000.0	658.6	4.5	11.3
13000.0	635.5	1.2	7.5
14000.0	611.0	0.3	16.7
15000.0	590.8	-1.9	22.8
16000.0	562.6	-5.5	18.4
17000.0	542.3	-6.5	6.9
18000.0	524.2	-5.3	2.0
19000.0	505.9	-9.9	7.1
20000.0	484.6	-12.7	7.2
21000.0	462.2	-14.7	19.6
22000.0	444.7	-18.4	15.2
23000.0	429.6	-17.9	12.5
24000.0	411.2	-20.8	43.3
25000.0	393.2	-24.6	57.2
26000.0	378.6	-26.4	51.8
27000.0	358.1	-27.2	46.2
28000.0	343.7	-31.0	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.8	22.6	93.3
1000.0	983.7	20.4	98.0
2000.0	949.0	20.5	15.7

3000.0	914.6	21.5	33.8
4000.0	880.6	21.0	48.7
5000.0	851.9	17.7	42.4
6000.0	821.6	16.5	18.5
7000.0	796.8	15.1	36.4
8000.0	767.7	11.8	26.1
9000.0	744.1	7.7	16.1
10000.0	710.5	9.7	2.0
11000.0	682.5	3.8	16.5
12000.0	659.8	5.6	8.4
13000.0	639.1	3.7	2.0
14000.0	614.3	0.1	14.0
15000.0	590.6	-2.2	2.0
16000.0	566.4	-4.8	5.4
17000.0	543.7	-6.3	1.8
18000.0	529.6	-8.3	10.5
19000.0	503.2	-12.4	2.0
20000.0	489.9	-12.0	9.0
21000.0	466.0	-14.8	11.7
22000.0	454.4	-16.7	4.0
23000.0	431.0	-18.3	20.3
24000.0	410.5	-21.3	44.8
25000.0	392.2	-23.3	54.1
26000.0	378.2	-27.4	39.2
27000.0	363.9	-29.0	48.6
28000.0	346.3	-31.2	63.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.9	90.9
1000.0	984.1	19.5	93.9
2000.0	949.2	21.0	43.3
3000.0	921.8	19.5	36.9
4000.0	880.9	18.7	37.7
5000.0	848.4	16.5	37.7
6000.0	823.0	16.3	38.0
7000.0	797.6	11.8	28.7
8000.0	767.0	10.3	28.3
9000.0	742.9	10.2	34.5
10000.0	705.0	7.1	24.6
11000.0	681.0	5.9	23.2
12000.0	661.2	4.5	12.1
13000.0	638.7	0.5	7.4
14000.0	608.5	0.0	9.8
15000.0	590.2	-4.9	16.9
16000.0	568.1	-6.4	13.9
17000.0	543.2	-7.3	7.1
18000.0	524.2	-8.4	22.4
19000.0	509.7	-9.9	11.9
20000.0	483.0	-13.7	10.3
21000.0	462.1	-16.1	6.8
22000.0	446.0	-16.5	6.5
23000.0	431.9	-17.8	0.9
24000.0	410.6	-23.7	45.6
25000.0	396.3	-21.9	64.2
26000.0	373.8	-28.7	42.3
27000.0	359.9	-30.5	61.9
28000.0	348.7	-31.4	60.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.2	24.4	97.4
1000.0	978.5	22.3	93.8
2000.0	950.2	20.5	47.5
3000.0	914.2	20.1	44.2
4000.0	879.7	18.6	48.4
5000.0	851.4	16.3	29.0
6000.0	823.1	15.0	20.1
7000.0	795.9	13.5	33.9
8000.0	764.1	11.1	28.3
9000.0	740.2	10.2	18.6
10000.0	712.6	7.3	17.2
11000.0	683.5	5.7	12.2
12000.0	661.5	3.1	2.0
13000.0	636.7	1.9	32.4
14000.0	609.7	0.7	2.0
15000.0	589.8	-2.4	12.7
16000.0	562.7	-4.9	15.9
17000.0	546.0	-6.8	2.4
18000.0	524.8	-9.1	2.0
19000.0	504.4	-11.1	9.7
20000.0	483.8	-14.7	3.5
21000.0	461.7	-15.6	5.2
22000.0	447.1	-17.2	3.5
23000.0	431.4	-20.4	5.0
24000.0	410.4	-20.5	51.3
25000.0	389.7	-24.5	48.9
26000.0	382.7	-26.6	58.4
27000.0	358.4	-27.8	44.9
28000.0	348.7	-33.6	58.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.4	93.3
1000.0	983.5	22.6	83.7
2000.0	949.4	22.7	29.3
3000.0	918.5	19.5	37.0
4000.0	878.1	18.5	46.7
5000.0	850.7	18.8	37.6
6000.0	819.9	15.4	24.1
7000.0	798.0	14.1	25.3
8000.0	768.1	10.5	39.7
9000.0	740.7	11.7	31.1
10000.0	708.3	8.2	12.2
11000.0	682.5	6.2	9.4
12000.0	658.8	5.3	17.7
13000.0	638.6	1.6	9.7
14000.0	609.1	0.2	5.8
15000.0	591.1	-1.5	2.0
16000.0	566.6	-5.6	18.2
17000.0	541.1	-7.1	10.3
18000.0	531.7	-7.8	12.0
19000.0	505.2	-10.7	4.1
20000.0	483.5	-12.4	16.3
21000.0	462.5	-16.8	16.8
22000.0	451.3	-14.9	22.5
23000.0	424.0	-17.8	17.2
24000.0	410.8	-21.6	37.4
25000.0	397.9	-24.6	69.8
26000.0	378.1	-28.2	39.0
27000.0	362.8	-30.1	46.5
28000.0	347.0	-32.2	64.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.6	87.7
1000.0	984.6	19.9	98.5
2000.0	953.2	22.5	29.7
3000.0	915.9	20.3	28.4
4000.0	878.0	18.4	49.8
5000.0	854.8	15.8	34.5
6000.0	824.9	17.8	43.6
7000.0	796.0	15.0	24.7
8000.0	767.0	11.9	29.2
9000.0	741.0	9.3	21.0
10000.0	708.4	9.2	15.0
11000.0	685.3	6.5	18.0
12000.0	662.5	3.0	2.0
13000.0	635.3	2.4	4.8
14000.0	606.2	0.4	3.2
15000.0	589.4	-1.4	5.0
16000.0	568.3	-4.2	2.0
17000.0	544.3	-7.7	2.8
18000.0	525.7	-8.9	12.7
19000.0	504.0	-11.4	1.3
20000.0	484.4	-13.9	6.3
21000.0	471.1	-17.3	2.0
22000.0	444.3	-18.0	1.1
23000.0	424.8	-19.7	2.0
24000.0	411.3	-21.8	43.2
25000.0	394.4	-24.9	54.1
26000.0	380.1	-27.7	49.3
27000.0	360.1	-30.6	35.4
28000.0	344.0	-32.4	57.0

FILE: CAL1B

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.3	91.8
1000.0	984.1	18.5	98.0
2000.0	953.4	21.2	19.8
3000.0	916.4	18.4	31.6
4000.0	877.3	18.6	33.8
5000.0	851.5	19.8	30.6
6000.0	822.1	12.8	36.4
7000.0	790.7	16.8	30.6
8000.0	767.7	14.0	26.2
9000.0	740.3	7.6	25.1
10000.0	711.0	9.4	18.7
11000.0	684.1	6.1	19.8
12000.0	663.0	1.3	2.0
13000.0	639.9	0.5	13.1
14000.0	615.1	2.9	2.0
15000.0	592.1	-0.1	18.5
16000.0	567.9	-2.9	9.0
17000.0	541.9	-5.0	10.6
18000.0	526.2	-10.2	2.0
19000.0	505.8	-12.4	3.0
20000.0	488.8	-14.3	27.2
21000.0	462.0	-15.2	2.0
22000.0	443.0	-17.4	6.8
23000.0	427.4	-20.5	2.0
24000.0	409.5	-22.4	30.9
25000.0	399.3	-23.4	47.5
26000.0	380.5	-25.5	50.1
27000.0	363.2	-27.5	57.5
28000.0	346.0	-30.5	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.4	99.0
1000.0	980.9	23.8	86.3
2000.0	946.4	20.1	54.8
3000.0	919.3	20.2	31.4
4000.0	884.1	22.6	37.5
5000.0	851.3	21.5	30.8
6000.0	819.6	18.9	23.1
7000.0	798.5	11.9	33.9
8000.0	768.5	12.3	34.2
9000.0	738.6	9.1	27.2
10000.0	709.8	10.2	7.3
11000.0	686.0	7.7	16.2
12000.0	655.8	7.3	2.0
13000.0	639.3	-1.9	2.0
14000.0	610.0	-0.2	1.7
15000.0	591.7	-4.2	15.2
16000.0	562.9	-4.6	20.1
17000.0	543.1	-4.2	2.7
18000.0	526.7	-10.1	9.7
19000.0	507.6	-9.8	0.5
20000.0	491.1	-16.8	9.0
21000.0	464.3	-16.3	2.0
22000.0	444.6	-19.6	21.0
23000.0	429.7	-17.9	12.3
24000.0	413.7	-22.0	45.0
25000.0	395.7	-23.0	33.5
26000.0	379.9	-27.8	46.7
27000.0	367.8	-29.9	45.2
28000.0	347.2	-29.7	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.4	23.1	86.9
1000.0	985.3	23.0	87.5
2000.0	952.8	20.1	25.3
3000.0	915.3	20.3	50.8
4000.0	878.5	20.6	36.2
5000.0	852.6	17.8	39.4
6000.0	825.2	14.0	14.8
7000.0	793.3	16.1	35.5
8000.0	768.4	8.8	28.0
9000.0	739.4	12.8	31.1
10000.0	707.3	8.0	9.0
11000.0	684.0	6.5	17.5
12000.0	659.7	1.7	25.9
13000.0	634.3	5.3	3.2
14000.0	613.4	-2.8	2.0
15000.0	592.0	-3.7	9.1
16000.0	566.9	-6.2	26.5
17000.0	540.6	-5.6	2.0
18000.0	531.4	-11.9	11.0
19000.0	505.2	-11.2	12.0
20000.0	484.5	-13.6	13.5
21000.0	468.1	-15.5	17.5
22000.0	445.7	-18.4	1.9
23000.0	430.2	-14.7	17.7
24000.0	406.9	-23.7	54.2
25000.0	397.4	-23.1	54.7
26000.0	379.5	-29.3	42.3
27000.0	362.4	-31.5	28.2
28000.0	350.0	-32.8	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.4	79.5
1000.0	978.2	21.7	93.3
2000.0	949.2	22.8	47.8
3000.0	915.4	21.7	28.2
4000.0	880.0	20.3	32.4
5000.0	854.9	18.2	23.7
6000.0	826.9	15.6	33.6
7000.0	792.3	11.5	45.4
8000.0	768.0	11.9	30.8
9000.0	737.5	7.6	25.7
10000.0	709.8	10.4	27.1
11000.0	686.0	8.6	3.4
12000.0	655.1	4.3	2.0
13000.0	640.2	2.0	12.3
14000.0	610.1	0.3	6.8
15000.0	586.3	-2.4	2.0
16000.0	562.6	-3.1	1.8
17000.0	543.9	-3.9	8.2
18000.0	523.3	-9.3	14.8
19000.0	503.8	-15.4	9.8
20000.0	485.0	-12.8	11.4
21000.0	465.7	-14.8	5.1
22000.0	451.5	-19.4	0.4
23000.0	429.3	-18.3	4.2
24000.0	411.4	-22.7	42.4
25000.0	397.3	-26.9	59.8
26000.0	379.6	-27.1	57.7
27000.0	361.2	-32.1	50.0
28000.0	347.4	-30.3	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.9	91.8
1000.0	981.7	24.9	77.4
2000.0	950.5	20.5	26.8
3000.0	910.7	18.1	41.2
4000.0	883.9	18.6	40.8
5000.0	855.4	16.9	37.0
6000.0	822.5	16.3	49.4
7000.0	793.1	14.0	32.5
8000.0	768.1	11.5	19.1
9000.0	742.2	6.1	20.4
10000.0	712.4	11.1	28.2
11000.0	682.7	6.9	11.4
12000.0	658.6	4.4	11.3
13000.0	635.5	-0.1	7.5
14000.0	611.0	1.1	16.7
15000.0	590.8	-1.2	22.8
16000.0	562.6	-5.9	18.4
17000.0	542.3	-6.1	6.9
18000.0	524.2	-2.4	2.0
19000.0	505.9	-9.1	7.1
20000.0	484.6	-12.6	7.2
21000.0	462.2	-14.1	19.6
22000.0	444.7	-19.5	15.2
23000.0	429.6	-16.7	12.5
24000.0	411.2	-19.8	43.3
25000.0	393.2	-24.9	57.2
26000.0	378.6	-25.8	51.8
27000.0	358.1	-24.6	46.2
28000.0	343.7	-29.9	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.8	22.5	93.3
1000.0	983.7	19.0	98.0
2000.0	949.0	19.3	15.7

3000.0	914.6	22.6	33.8
4000.0	880.6	22.8	48.7
5000.0	851.9	18.0	42.4
6000.0	821.6	16.8	18.5
7000.0	796.8	15.9	36.4
8000.0	767.7	11.5	26.1
9000.0	744.1	5.9	16.1
10000.0	710.5	11.0	2.0
11000.0	682.5	1.9	16.5
12000.0	659.8	6.5	8.4
13000.0	639.1	5.1	2.0
14000.0	614.3	0.7	14.0
15000.0	590.6	-1.8	2.0
16000.0	566.4	-4.3	5.4
17000.0	543.7	-5.6	1.8
18000.0	529.6	-8.3	10.5
19000.0	503.2	-13.9	2.0
20000.0	489.9	-11.1	9.0
21000.0	466.0	-14.1	11.7
22000.0	454.4	-16.2	4.0
23000.0	431.0	-17.6	20.3
24000.0	410.5	-20.8	44.8
25000.0	392.2	-22.4	54.1
26000.0	378.2	-27.8	39.2
27000.0	363.9	-28.4	48.6
28000.0	346.3	-30.3	63.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	25.2	90.9
1000.0	984.1	17.2	93.9
2000.0	949.2	20.2	43.3
3000.0	921.8	18.8	36.9
4000.0	880.9	18.3	37.7
5000.0	848.4	15.7	37.7
6000.0	823.0	16.4	38.0
7000.0	797.6	9.1	28.7
8000.0	767.0	8.4	28.3
9000.0	742.9	11.0	34.5
10000.0	705.0	5.9	24.6
11000.0	681.0	6.2	23.2
12000.0	661.2	4.3	12.1
13000.0	638.7	-1.4	7.4
14000.0	608.5	0.5	9.8
15000.0	590.2	-7.4	16.9
16000.0	568.1	-7.7	13.9
17000.0	543.2	-7.6	7.1
18000.0	524.2	-8.5	22.4
19000.0	509.7	-9.0	11.9
20000.0	483.0	-14.6	10.3
21000.0	462.1	-16.8	6.8
22000.0	446.0	-15.8	6.5
23000.0	431.9	-16.7	0.9
24000.0	410.6	-25.6	45.6
25000.0	396.3	-19.5	64.2
26000.0	373.8	-30.3	42.3
27000.0	359.9	-31.3	61.9
28000.0	348.7	-30.9	60.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.2	26.1	97.4
1000.0	978.5	22.6	93.8
2000.0	950.2	19.2	47.5
3000.0	914.2	19.9	44.2
4000.0	879.7	18.2	48.4
5000.0	851.4	15.3	29.0
6000.0	823.1	13.7	20.1
7000.0	795.9	12.6	33.9
8000.0	764.1	10.1	28.3
9000.0	740.2	10.9	18.6
10000.0	712.6	6.4	17.2
11000.0	683.5	5.6	12.2
12000.0	661.5	1.5	2.0
13000.0	636.7	1.5	32.4
14000.0	609.7	1.8	2.0
15000.0	589.8	-2.4	12.7
16000.0	562.7	-4.5	15.9
17000.0	546.0	-6.6	2.4
18000.0	524.8	-10.1	2.0
19000.0	504.4	-11.5	9.7
20000.0	483.8	-16.6	3.5
21000.0	461.7	-15.7	5.2
22000.0	447.1	-17.2	3.5
23000.0	431.4	-21.8	5.0
24000.0	410.4	-19.2	51.3
25000.0	389.7	-24.7	48.9
26000.0	382.7	-26.1	58.4
27000.0	358.4	-26.0	44.9
28000.0	348.7	-35.2	58.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.2	93.3
1000.0	983.5	23.2	83.7
2000.0	949.4	23.6	29.3
3000.0	918.5	18.7	37.0
4000.0	878.1	17.8	46.7
5000.0	850.7	20.3	37.6
6000.0	819.9	14.6	24.1
7000.0	798.0	13.8	25.3
8000.0	768.1	8.9	39.7
9000.0	740.7	13.9	31.1
10000.0	708.3	8.1	12.2
11000.0	682.5	6.8	9.4
12000.0	658.8	6.0	17.7
13000.0	638.6	0.8	9.7
14000.0	609.1	0.7	5.8
15000.0	591.1	-0.6	2.0
16000.0	566.6	-6.1	18.2
17000.0	541.1	-7.3	10.3
18000.0	531.7	-7.4	12.0
19000.0	505.2	-10.6	4.1
20000.0	483.5	-12.0	16.3
21000.0	462.5	-18.1	16.8
22000.0	451.3	-12.7	22.5
23000.0	424.0	-16.6	17.2
24000.0	410.8	-21.3	37.4
25000.0	397.9	-24.8	69.8
26000.0	378.1	-29.2	39.0
27000.0	362.8	-30.5	46.5
28000.0	347.0	-32.4	64.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.6	87.7
1000.0	984.6	18.0	98.5
2000.0	953.2	23.2	29.7
3000.0	915.9	20.2	28.4
4000.0	878.0	17.8	49.8
5000.0	854.8	14.3	34.5
6000.0	824.9	19.3	43.6
7000.0	796.0	15.5	24.7
8000.0	767.0	11.7	29.2
9000.0	741.0	9.1	21.0
10000.0	708.4	10.0	15.0
11000.0	685.3	7.4	18.0
12000.0	662.5	1.3	2.0
13000.0	635.3	2.5	4.8
14000.0	606.2	1.1	3.2
15000.0	589.4	-0.3	5.0
16000.0	568.3	-3.1	2.0
17000.0	544.3	-8.3	2.8
18000.0	525.7	-9.6	12.7
19000.0	504.0	-12.0	1.3
20000.0	484.4	-14.9	6.3
21000.0	471.1	-19.2	2.0
22000.0	444.3	-18.8	1.1
23000.0	424.8	-20.4	2.0
24000.0	411.3	-21.8	43.2
25000.0	394.4	-25.5	54.1
26000.0	380.1	-28.3	49.3
27000.0	360.1	-31.6	35.4
28000.0	344.0	-32.9	57.0

FILE: CAL1C

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.0	91.8
1000.0	984.1	15.1	98.0
2000.0	953.4	20.6	19.8
3000.0	916.4	16.5	31.6
4000.0	877.3	18.0	33.8
5000.0	851.5	22.4	30.6
6000.0	822.1	9.5	36.4
7000.0	790.7	19.2	30.6
8000.0	767.7	15.9	26.2
9000.0	740.3	5.7	25.1
10000.0	711.0	10.5	18.7
11000.0	684.1	6.5	19.8
12000.0	663.0	-2.2	2.0
13000.0	639.9	-1.4	13.1
14000.0	615.1	6.3	2.0
15000.0	592.1	2.3	18.5
16000.0	567.9	-0.5	9.0
17000.0	541.9	-3.0	10.6
18000.0	526.2	-12.2	2.0
19000.0	505.8	-13.9	3.0
20000.0	488.8	-15.7	27.2
21000.0	462.0	-15.0	2.0
22000.0	443.0	-17.6	6.8
23000.0	427.4	-21.9	2.0
24000.0	409.5	-23.0	30.9
25000.0	399.3	-22.5	47.5
26000.0	380.5	-23.9	50.1
27000.0	363.2	-25.4	57.5
28000.0	346.0	-28.9	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.3	99.0
1000.0	980.9	25.7	86.3
2000.0	946.4	18.4	54.8
3000.0	919.3	20.1	31.4
4000.0	884.1	26.1	37.5
5000.0	851.3	25.7	30.8
6000.0	819.6	21.5	23.1
7000.0	798.5	9.5	33.9
8000.0	768.5	12.5	34.2
9000.0	738.6	8.7	27.2
10000.0	709.8	12.2	7.3
11000.0	686.0	9.7	16.2
12000.0	655.8	9.9	2.0
13000.0	639.3	-6.1	2.0
14000.0	610.0	0.1	1.7
15000.0	591.7	-5.9	15.2
16000.0	562.9	-4.0	20.1
17000.0	543.1	-1.4	2.7
18000.0	526.7	-12.0	9.7
19000.0	507.6	-8.8	0.5
20000.0	491.1	-20.9	9.0
21000.0	464.3	-17.2	2.0
22000.0	444.6	-22.1	21.0
23000.0	429.7	-16.7	12.3
24000.0	413.7	-22.2	45.0
25000.0	395.7	-21.6	33.5
26000.0	379.9	-28.4	46.7
27000.0	367.8	-30.1	45.2
28000.0	347.2	-27.5	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.4	23.6	86.9
1000.0	985.3	24.2	87.5
2000.0	952.8	18.4	25.3
3000.0	915.3	20.3	50.8
4000.0	878.5	22.0	36.2
5000.0	852.6	18.3	39.4
6000.0	825.2	11.9	14.8
7000.0	793.3	17.7	35.5
8000.0	768.4	5.5	28.0
9000.0	739.4	16.1	31.1
10000.0	707.3	7.7	9.0
11000.0	684.0	7.2	17.5
12000.0	659.7	-1.3	25.9
13000.0	634.3	8.1	3.2
14000.0	613.4	-5.1	2.0
15000.0	592.0	-4.9	9.1
16000.0	566.9	-7.2	26.5
17000.0	540.6	-4.1	2.0
18000.0	531.4	-15.6	11.0
19000.0	505.2	-11.7	12.0
20000.0	484.5	-14.4	13.5
21000.0	468.1	-15.6	17.5
22000.0	445.7	-19.6	1.9
23000.0	430.2	-10.5	17.7
24000.0	406.9	-25.5	54.2
25000.0	397.4	-21.9	54.7
26000.0	379.5	-31.4	42.3
27000.0	362.4	-33.3	28.2
28000.0	350.0	-33.5	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.3	79.5
1000.0	978.2	21.5	93.3
2000.0	949.2	23.7	47.8
3000.0	915.4	23.0	28.2
4000.0	880.0	21.5	32.4
5000.0	854.9	19.0	23.7
6000.0	826.9	15.1	33.6
7000.0	792.3	8.6	45.4
8000.0	768.0	11.7	30.8
9000.0	737.5	5.8	25.7
10000.0	709.8	12.5	27.1
11000.0	686.0	11.5	3.4
12000.0	655.1	3.8	2.0
13000.0	640.2	1.6	12.3
14000.0	610.1	0.9	6.8
15000.0	586.3	-2.2	2.0
16000.0	562.6	-0.9	1.8
17000.0	543.9	-0.9	8.2
18000.0	523.3	-10.4	14.8
19000.0	503.8	-20.0	9.8
20000.0	485.0	-12.9	11.4
21000.0	465.7	-14.2	5.1
22000.0	451.5	-21.5	0.4
23000.0	429.3	-17.7	4.2
24000.0	411.4	-23.5	42.4
25000.0	397.3	-29.6	59.8
26000.0	379.6	-27.1	57.7
27000.0	361.2	-34.5	50.0
28000.0	347.4	-28.7	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	19.2	91.8
1000.0	981.7	27.9	77.4
2000.0	950.5	19.2	26.8
3000.0	910.7	15.8	41.2
4000.0	883.9	18.1	40.8
5000.0	855.4	16.6	37.0
6000.0	822.5	16.3	49.4
7000.0	793.1	13.5	32.5
8000.0	768.1	10.9	19.1
9000.0	742.2	2.8	20.4
10000.0	712.4	13.8	28.2
11000.0	682.7	8.2	11.4
12000.0	658.6	4.0	11.3
13000.0	635.5	-2.6	7.5
14000.0	611.0	2.6	16.7
15000.0	590.8	0.0	22.8
16000.0	562.6	-6.5	18.4
17000.0	542.3	-5.1	6.9
18000.0	524.2	3.3	2.0
19000.0	505.9	-7.4	7.1
20000.0	484.6	-12.5	7.2
21000.0	462.2	-12.7	19.6
22000.0	444.7	-21.9	15.2
23000.0	429.6	-14.5	12.5
24000.0	411.2	-17.9	43.3
25000.0	393.2	-25.5	57.2
26000.0	378.6	-24.5	51.8
27000.0	358.1	-19.6	46.2
28000.0	343.7	-27.9	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.8	22.5	93.3
1000.0	983.7	16.0	98.0
2000.0	949.0	16.7	15.7

3000.0	914.6	24.9	33.8
4000.0	880.6	26.6	48.7
5000.0	851.9	18.8	42.4
6000.0	821.6	17.4	18.5
7000.0	796.8	17.3	36.4
8000.0	767.7	11.0	26.1
9000.0	744.1	2.4	16.1
10000.0	710.5	13.7	2.0
11000.0	682.5	-1.8	16.5
12000.0	659.8	8.3	8.4
13000.0	639.1	7.8	2.0
14000.0	614.3	1.7	14.0
15000.0	590.6	-1.2	2.0
16000.0	566.4	-3.4	5.4
17000.0	543.7	-4.1	1.8
18000.0	529.6	-8.4	10.5
19000.0	503.2	-17.1	2.0
20000.0	489.9	-9.4	9.0
21000.0	466.0	-12.8	11.7
22000.0	454.4	-15.2	4.0
23000.0	431.0	-16.3	20.3
24000.0	410.5	-19.8	44.8
25000.0	392.2	-20.5	54.1
26000.0	378.2	-28.4	39.2
27000.0	363.9	-27.1	48.6
28000.0	346.3	-28.7	63.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	27.8	90.9
1000.0	984.1	12.5	93.9
2000.0	949.2	18.5	43.3
3000.0	921.8	17.2	36.9
4000.0	880.9	17.5	37.7
5000.0	848.4	14.0	37.7
6000.0	823.0	16.6	38.0
7000.0	797.6	3.8	28.7
8000.0	767.0	4.8	28.3
9000.0	742.9	12.4	34.5
10000.0	705.0	3.5	24.6
11000.0	681.0	6.7	23.2
12000.0	661.2	3.8	12.1
13000.0	638.7	-5.1	7.4
14000.0	608.5	1.3	9.8
15000.0	590.2	-12.2	16.9
16000.0	568.1	-10.1	13.9
17000.0	543.2	-8.2	7.1
18000.0	524.2	-8.9	22.4
19000.0	509.7	-7.2	11.9
20000.0	483.0	-16.4	10.3
21000.0	462.1	-18.2	6.8
22000.0	446.0	-14.4	6.5
23000.0	431.9	-14.4	0.9
24000.0	410.6	-29.5	45.6
25000.0	396.3	-14.7	64.2
26000.0	373.8	-33.5	42.3
27000.0	359.9	-32.8	61.9
28000.0	348.7	-29.7	60.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.2	29.6	97.4
1000.0	978.5	23.3	93.8
2000.0	950.2	16.6	47.5
3000.0	914.2	19.6	44.2
4000.0	879.7	17.3	48.4
5000.0	851.4	13.3	29.0
6000.0	823.1	11.3	20.1
7000.0	795.9	10.8	33.9
8000.0	764.1	8.0	28.3
9000.0	740.2	12.4	18.6
10000.0	712.6	4.5	17.2
11000.0	683.5	5.6	12.2
12000.0	661.5	-1.7	2.0
13000.0	636.7	0.5	32.4
14000.0	609.7	4.1	2.0
15000.0	589.8	-2.2	12.7
16000.0	562.7	-3.9	15.9
17000.0	546.0	-6.2	2.4
18000.0	524.8	-12.0	2.0
19000.0	504.4	-12.2	9.7
20000.0	483.8	-20.5	3.5
21000.0	461.7	-16.0	5.2
22000.0	447.1	-17.1	3.5
23000.0	431.4	-24.6	5.0
24000.0	410.4	-16.6	51.3
25000.0	389.7	-25.0	48.9
26000.0	382.7	-25.0	58.4
27000.0	358.4	-22.3	44.9
28000.0	348.7	-38.5	58.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	93.3
1000.0	983.5	24.6	83.7
2000.0	949.4	25.5	29.3
3000.0	918.5	17.1	37.0
4000.0	878.1	16.6	46.7
5000.0	850.7	23.2	37.6
6000.0	819.9	13.1	24.1
7000.0	798.0	13.2	25.3
8000.0	768.1	5.7	39.7
9000.0	740.7	18.3	31.1
10000.0	708.3	8.0	12.2
11000.0	682.5	7.8	9.4
12000.0	658.8	7.3	17.7
13000.0	638.6	-0.8	9.7
14000.0	609.1	1.8	5.8
15000.0	591.1	1.3	2.0
16000.0	566.6	-6.9	18.2
17000.0	541.1	-7.6	10.3
18000.0	531.7	-6.7	12.0
19000.0	505.2	-10.4	4.1
20000.0	483.5	-11.1	16.3
21000.0	462.5	-20.8	16.8
22000.0	451.3	-8.1	22.5
23000.0	424.0	-14.3	17.2
24000.0	410.8	-20.9	37.4
25000.0	397.9	-25.4	69.8
26000.0	378.1	-31.3	39.0
27000.0	362.8	-31.3	46.5
28000.0	347.0	-32.9	64.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	30.7	87.7
1000.0	984.6	14.1	98.5
2000.0	953.2	24.7	29.7
3000.0	915.9	20.2	28.4
4000.0	878.0	16.4	49.8
5000.0	854.8	11.3	34.5
6000.0	824.9	22.4	43.6
7000.0	796.0	16.6	24.7
8000.0	767.0	11.4	29.2
9000.0	741.0	8.7	21.0
10000.0	708.4	11.7	15.0
11000.0	685.3	9.0	18.0
12000.0	662.5	-2.2	2.0
13000.0	635.3	2.5	4.8
14000.0	606.2	2.7	3.2
15000.0	589.4	2.0	5.0
16000.0	568.3	-1.1	2.0
17000.0	544.3	-9.6	2.8
18000.0	525.7	-11.0	12.7
19000.0	504.0	-13.2	1.3
20000.0	484.4	-17.1	6.3
21000.0	471.1	-23.0	2.0
22000.0	444.3	-20.5	1.1
23000.0	424.8	-21.8	2.0
24000.0	411.3	-21.7	43.2
25000.0	394.4	-26.8	54.1
26000.0	380.1	-29.5	49.3
27000.0	360.1	-33.4	35.4
28000.0	344.0	-33.7	57.0

FILE: CAL1D

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.0	91.8
1000.0	983.1	20.2	98.0
2000.0	952.1	21.5	19.8
3000.0	916.5	19.3	31.6
4000.0	878.7	18.8	33.8
5000.0	851.3	18.6	30.6
6000.0	822.9	14.5	36.4
7000.0	792.5	15.6	30.6
8000.0	767.3	13.0	26.2
9000.0	739.9	8.5	25.1
10000.0	710.5	8.9	18.7
11000.0	684.0	5.9	19.8
12000.0	661.3	3.0	2.0
13000.0	638.5	1.5	13.1
14000.0	613.1	1.3	2.0
15000.0	591.4	-1.3	18.5
16000.0	566.7	-4.0	9.0
17000.0	543.0	-6.0	10.6
18000.0	525.7	-9.2	2.0
19000.0	505.6	-11.6	3.0
20000.0	487.8	-13.5	27.2
21000.0	462.9	-15.3	2.0
22000.0	444.5	-17.3	6.8
23000.0	428.0	-19.7	2.0
24000.0	410.1	-22.1	30.9
25000.0	397.8	-23.8	47.5
26000.0	379.6	-26.3	50.1
27000.0	363.0	-28.6	57.5
28000.0	346.6	-31.2	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.0	99.0
1000.0	981.2	22.9	86.3
2000.0	947.9	20.9	54.8
3000.0	918.2	20.2	31.4
4000.0	882.8	20.8	37.5
5000.0	851.2	19.4	30.8
6000.0	821.4	17.5	23.1
7000.0	797.2	13.2	33.9
8000.0	767.8	12.2	34.2
9000.0	738.9	9.3	27.2
10000.0	709.8	9.3	7.3
11000.0	685.2	6.7	16.2
12000.0	657.0	6.0	2.0
13000.0	638.1	0.3	2.0
14000.0	610.0	-0.3	1.7
15000.0	591.2	-3.4	15.2
16000.0	563.8	-4.9	20.1
17000.0	543.8	-5.6	2.7
18000.0	526.0	-9.1	9.7
19000.0	506.7	-10.3	0.5
20000.0	489.2	-14.8	9.0
21000.0	464.3	-15.9	2.0
22000.0	445.4	-18.4	21.0
23000.0	429.3	-18.4	12.3
24000.0	412.7	-21.9	45.0
25000.0	395.6	-23.6	33.5
26000.0	379.3	-27.4	46.7
27000.0	365.8	-29.8	45.2
28000.0	347.3	-30.9	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.2	22.8	86.9
1000.0	983.8	22.5	87.5
2000.0	951.8	21.0	25.3
3000.0	915.8	20.3	50.8
4000.0	879.4	19.8	36.2
5000.0	852.0	17.5	39.4
6000.0	824.7	15.1	14.8
7000.0	794.1	15.2	35.5
8000.0	767.7	10.5	28.0
9000.0	739.4	11.1	31.1
10000.0	708.3	8.2	9.0
11000.0	684.0	6.1	17.5
12000.0	659.3	3.2	25.9
13000.0	635.2	3.8	3.2
14000.0	612.1	-1.6	2.0
15000.0	591.4	-3.1	9.1
16000.0	566.2	-5.7	26.5
17000.0	542.2	-6.3	2.0
18000.0	528.9	-10.1	11.0
19000.0	505.3	-11.0	12.0
20000.0	485.2	-13.2	13.5
21000.0	466.5	-15.5	17.5
22000.0	446.1	-17.8	1.9
23000.0	429.6	-16.9	17.7
24000.0	408.6	-22.7	54.2
25000.0	396.6	-23.7	54.7
26000.0	379.0	-28.2	42.3
27000.0	362.5	-30.6	28.2
28000.0	349.0	-32.4	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.5	79.5
1000.0	979.5	21.8	93.3
2000.0	949.6	22.3	47.8
3000.0	915.8	21.0	28.2
4000.0	880.3	19.7	32.4
5000.0	853.4	17.7	23.7
6000.0	825.8	15.9	33.6
7000.0	793.5	12.9	45.4
8000.0	767.5	12.0	30.8
9000.0	738.2	8.6	25.7
10000.0	709.8	9.4	27.1
11000.0	685.2	7.1	3.4
12000.0	656.6	4.5	2.0
13000.0	638.7	2.2	12.3
14000.0	610.1	-0.1	6.8
15000.0	587.9	-2.4	2.0
16000.0	563.6	-4.1	1.8
17000.0	544.2	-5.5	8.2
18000.0	524.0	-8.8	14.8
19000.0	504.5	-13.1	9.8
20000.0	485.5	-12.8	11.4
21000.0	465.1	-15.1	5.1
22000.0	449.6	-18.3	0.4
23000.0	429.1	-18.7	4.2
24000.0	411.3	-22.2	42.4
25000.0	396.6	-25.6	59.8
26000.0	379.1	-27.1	57.7
27000.0	361.8	-30.9	50.0
28000.0	347.5	-31.2	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	91.8
1000.0	981.6	23.4	77.4
2000.0	950.4	21.1	26.8
3000.0	913.0	19.2	41.2
4000.0	882.6	18.9	40.8
5000.0	853.7	17.1	37.0
6000.0	823.1	16.2	49.4
7000.0	794.0	14.2	32.5
8000.0	767.5	11.8	19.1
9000.0	741.0	7.8	20.4
10000.0	711.4	9.7	28.2
11000.0	683.2	6.3	11.4
12000.0	658.7	4.5	11.3
13000.0	635.9	1.2	7.5
14000.0	610.6	0.3	16.7
15000.0	590.7	-1.9	22.8
16000.0	563.5	-5.5	18.4
17000.0	543.3	-6.5	6.9
18000.0	524.5	-5.3	2.0
19000.0	505.7	-9.9	7.1
20000.0	485.3	-12.7	7.2
21000.0	463.0	-14.7	19.6
22000.0	445.5	-18.4	15.2
23000.0	429.3	-17.9	12.5
24000.0	411.1	-20.8	43.3
25000.0	394.1	-24.6	57.2
26000.0	378.5	-26.4	51.8
27000.0	360.0	-27.2	46.2
28000.0	345.3	-31.0	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.4	22.6	93.3
1000.0	982.9	20.4	98.0
2000.0	949.5	20.5	15.7

3000.0	915.4	21.5	33.8
4000.0	880.7	21.0	48.7
5000.0	851.6	17.7	42.4
6000.0	822.6	16.5	18.5
7000.0	796.2	15.1	36.4
8000.0	767.3	11.8	26.1
9000.0	742.2	7.7	16.1
10000.0	710.2	9.7	2.0
11000.0	683.1	3.8	16.5
12000.0	659.4	5.6	8.4
13000.0	638.0	3.7	2.0
14000.0	612.6	0.1	14.0
15000.0	590.5	-2.2	2.0
16000.0	565.9	-4.8	5.4
17000.0	544.1	-6.3	1.8
18000.0	527.8	-8.3	10.5
19000.0	504.1	-12.4	2.0
20000.0	488.4	-12.0	9.0
21000.0	465.3	-14.8	11.7
22000.0	451.3	-16.7	4.0
23000.0	430.1	-18.3	20.3
24000.0	410.7	-21.3	44.8
25000.0	393.5	-23.3	54.1
26000.0	378.3	-27.4	39.2
27000.0	363.4	-29.0	48.6
28000.0	346.8	-31.2	63.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.9	90.9
1000.0	983.1	19.5	93.9
2000.0	949.6	21.0	43.3
3000.0	919.7	19.5	36.9
4000.0	880.8	18.7	37.7
5000.0	849.5	16.5	37.7
6000.0	823.4	16.3	38.0
7000.0	796.7	11.8	28.7
8000.0	766.9	10.3	28.3
9000.0	741.5	10.2	34.5
10000.0	706.9	7.1	24.6
11000.0	682.1	5.9	23.2
12000.0	660.2	4.5	12.1
13000.0	637.8	0.5	7.4
14000.0	609.1	0.0	9.8
15000.0	590.3	-4.9	16.9
16000.0	566.9	-6.4	13.9
17000.0	543.8	-7.3	7.1
18000.0	524.5	-8.4	22.4
19000.0	508.0	-9.9	11.9
20000.0	484.3	-13.7	10.3
21000.0	462.9	-16.1	6.8
22000.0	446.3	-16.5	6.5
23000.0	430.7	-17.8	0.9
24000.0	410.8	-23.7	45.6
25000.0	396.0	-21.9	64.2
26000.0	375.6	-28.7	42.3
27000.0	361.0	-30.5	61.9
28000.0	348.3	-31.4	60.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.0	24.4	97.4
1000.0	979.7	22.3	93.8
2000.0	950.2	20.5	47.5
3000.0	915.1	20.1	44.2
4000.0	880.1	18.6	48.4
5000.0	851.3	16.3	29.0
6000.0	823.4	15.0	20.1
7000.0	795.7	13.5	33.9
8000.0	765.1	11.1	28.3
9000.0	739.9	10.2	18.6
10000.0	711.5	7.3	17.2
11000.0	683.6	5.7	12.2
12000.0	660.4	3.1	2.0
13000.0	636.6	1.9	32.4
14000.0	609.8	0.7	2.0
15000.0	590.0	-2.4	12.7
16000.0	563.6	-4.9	15.9
17000.0	545.5	-6.8	2.4
18000.0	524.9	-9.1	2.0
19000.0	504.8	-11.1	9.7
20000.0	484.8	-14.7	3.5
21000.0	462.7	-15.6	5.2
22000.0	446.9	-17.2	3.5
23000.0	430.3	-20.4	5.0
24000.0	410.7	-20.5	51.3
25000.0	392.0	-24.5	48.9
26000.0	381.0	-26.6	58.4
27000.0	360.1	-27.8	44.9
28000.0	348.3	-33.6	58.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.4	93.3
1000.0	982.7	22.6	83.7
2000.0	949.7	22.7	29.3
3000.0	917.7	19.5	37.0
4000.0	879.1	18.5	46.7
5000.0	850.9	18.8	37.6
6000.0	821.5	15.4	24.1
7000.0	796.9	14.1	25.3
8000.0	767.5	10.5	39.7
9000.0	740.1	11.7	31.1
10000.0	708.9	8.2	12.2
11000.0	683.0	6.2	9.4
12000.0	658.8	5.3	17.7
13000.0	637.7	1.6	9.7
14000.0	609.5	0.2	5.8
15000.0	590.8	-1.5	2.0
16000.0	565.9	-5.6	18.2
17000.0	542.6	-7.1	10.3
18000.0	529.0	-7.8	12.0
19000.0	505.3	-10.7	4.1
20000.0	484.6	-12.4	16.3
21000.0	463.2	-16.8	16.8
22000.0	449.4	-14.9	22.5
23000.0	425.9	-17.8	17.2
24000.0	410.9	-21.6	37.4
25000.0	396.9	-24.6	69.8
26000.0	378.1	-28.2	39.0
27000.0	362.8	-30.1	46.5
28000.0	347.2	-32.2	64.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.6	87.7
1000.0	983.4	19.9	98.5
2000.0	952.0	22.5	29.7
3000.0	916.1	20.3	28.4
4000.0	879.1	18.4	49.8
5000.0	853.3	15.8	34.5
6000.0	824.5	17.8	43.6
7000.0	795.7	15.0	24.7
8000.0	766.9	11.9	29.2
9000.0	740.3	9.3	21.0
10000.0	709.0	9.2	15.0
11000.0	684.7	6.5	18.0
12000.0	661.0	3.0	2.0
13000.0	635.7	2.4	4.8
14000.0	607.8	0.4	3.2
15000.0	589.8	-1.4	5.0
16000.0	567.0	-4.2	2.0
17000.0	544.4	-7.7	2.8
18000.0	525.4	-8.9	12.7
19000.0	504.6	-11.4	1.3
20000.0	485.1	-13.9	6.3
21000.0	468.4	-17.3	2.0
22000.0	445.2	-18.0	1.1
23000.0	426.4	-19.7	2.0
24000.0	411.2	-21.8	43.2
25000.0	394.8	-24.9	54.1
26000.0	379.4	-27.7	49.3
27000.0	361.1	-30.6	35.4
28000.0	345.4	-32.4	57.0

FILE: CAL1E

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.3	91.8
1000.0	983.1	18.5	98.0
2000.0	952.1	21.2	19.8
3000.0	916.5	18.4	31.6
4000.0	878.7	18.6	33.8
5000.0	851.3	19.8	30.6
6000.0	822.9	12.8	36.4
7000.0	792.5	16.8	30.6
8000.0	767.3	14.0	26.2
9000.0	739.9	7.6	25.1
10000.0	710.5	9.4	18.7
11000.0	684.0	6.1	19.8
12000.0	661.3	1.3	2.0
13000.0	638.5	0.5	13.1
14000.0	613.1	2.9	2.0
15000.0	591.4	-0.1	18.5
16000.0	566.7	-2.9	9.0
17000.0	543.0	-5.0	10.6
18000.0	525.7	-10.2	2.0
19000.0	505.6	-12.4	3.0
20000.0	487.8	-14.3	27.2
21000.0	462.9	-15.2	2.0
22000.0	444.5	-17.4	6.8
23000.0	428.0	-20.5	2.0
24000.0	410.1	-22.4	30.9
25000.0	397.8	-23.4	47.5
26000.0	379.6	-25.5	50.1
27000.0	363.0	-27.5	57.5
28000.0	346.6	-30.5	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.4	99.0
1000.0	981.2	23.8	86.3
2000.0	947.9	20.1	54.8
3000.0	918.2	20.2	31.4
4000.0	882.8	22.6	37.5
5000.0	851.2	21.5	30.8
6000.0	821.4	18.9	23.1
7000.0	797.2	11.9	33.9
8000.0	767.8	12.3	34.2
9000.0	738.9	9.1	27.2
10000.0	709.8	10.2	7.3
11000.0	685.2	7.7	16.2
12000.0	657.0	7.3	2.0
13000.0	638.1	-1.9	2.0
14000.0	610.0	-0.2	1.7
15000.0	591.2	-4.2	15.2
16000.0	563.8	-4.6	20.1
17000.0	543.8	-4.2	2.7
18000.0	526.0	-10.1	9.7
19000.0	506.7	-9.8	0.5
20000.0	489.2	-16.8	9.0
21000.0	464.3	-16.3	2.0
22000.0	445.4	-19.6	21.0
23000.0	429.3	-17.9	12.3
24000.0	412.7	-22.0	45.0
25000.0	395.6	-23.0	33.5
26000.0	379.3	-27.8	46.7
27000.0	365.8	-29.9	45.2
28000.0	347.3	-29.7	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.2	23.1	86.9
1000.0	983.8	23.0	87.5
2000.0	951.8	20.1	25.3
3000.0	915.8	20.3	50.8
4000.0	879.4	20.6	36.2
5000.0	852.0	17.8	39.4
6000.0	824.7	14.0	14.8
7000.0	794.1	16.1	35.5
8000.0	767.7	8.8	28.0
9000.0	739.4	12.8	31.1
10000.0	708.3	8.0	9.0
11000.0	684.0	6.5	17.5
12000.0	659.3	1.7	25.9
13000.0	635.2	5.3	3.2
14000.0	612.1	-2.8	2.0
15000.0	591.4	-3.7	9.1
16000.0	566.2	-6.2	26.5
17000.0	542.2	-5.6	2.0
18000.0	528.9	-11.9	11.0
19000.0	505.3	-11.2	12.0
20000.0	485.2	-13.6	13.5
21000.0	466.5	-15.5	17.5
22000.0	446.1	-18.4	1.9
23000.0	429.6	-14.7	17.7
24000.0	408.6	-23.7	54.2
25000.0	396.6	-23.1	54.7
26000.0	379.0	-29.3	42.3
27000.0	362.5	-31.5	28.2
28000.0	349.0	-32.8	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.4	79.5
1000.0	979.5	21.7	93.3
2000.0	949.6	22.8	47.8
3000.0	915.8	21.7	28.2
4000.0	880.3	20.3	32.4
5000.0	853.4	18.2	23.7
6000.0	825.8	15.6	33.6
7000.0	793.5	11.5	45.4
8000.0	767.5	11.9	30.8
9000.0	738.2	7.6	25.7
10000.0	709.8	10.4	27.1
11000.0	685.2	8.6	3.4
12000.0	656.6	4.3	2.0
13000.0	638.7	2.0	12.3
14000.0	610.1	0.3	6.8
15000.0	587.9	-2.4	2.0
16000.0	563.6	-3.1	1.8
17000.0	544.2	-3.9	8.2
18000.0	524.0	-9.3	14.8
19000.0	504.5	-15.4	9.8
20000.0	485.5	-12.8	11.4
21000.0	465.1	-14.8	5.1
22000.0	449.6	-19.4	0.4
23000.0	429.1	-18.3	4.2
24000.0	411.3	-22.7	42.4
25000.0	396.6	-26.9	59.8
26000.0	379.1	-27.1	57.7
27000.0	361.8	-32.1	50.0
28000.0	347.5	-30.3	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.9	91.8
1000.0	981.6	24.9	77.4
2000.0	950.4	20.5	26.8
3000.0	913.0	18.1	41.2
4000.0	882.6	18.6	40.8
5000.0	853.7	16.9	37.0
6000.0	823.1	16.3	49.4
7000.0	794.0	14.0	32.5
8000.0	767.5	11.5	19.1
9000.0	741.0	6.1	20.4
10000.0	711.4	11.1	28.2
11000.0	683.2	6.9	11.4
12000.0	658.7	4.4	11.3
13000.0	635.9	-0.1	7.5
14000.0	610.6	1.1	16.7
15000.0	590.7	-1.2	22.8
16000.0	563.5	-5.9	18.4
17000.0	543.3	-6.1	6.9
18000.0	524.5	-2.4	2.0
19000.0	505.7	-9.1	7.1
20000.0	485.3	-12.6	7.2
21000.0	463.0	-14.1	19.6
22000.0	445.5	-19.5	15.2
23000.0	429.3	-16.7	12.5
24000.0	411.1	-19.8	43.3
25000.0	394.1	-24.9	57.2
26000.0	378.5	-25.8	51.8
27000.0	360.0	-24.6	46.2
28000.0	345.3	-29.9	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.4	22.5	93.3
1000.0	982.9	19.0	98.0
2000.0	949.5	19.3	15.7

3000.0	915.4	22.6	33.8
4000.0	880.7	22.8	48.7
5000.0	851.6	18.0	42.4
6000.0	822.6	16.8	18.5
7000.0	796.2	15.9	36.4
8000.0	767.3	11.5	26.1
9000.0	742.2	5.9	16.1
10000.0	710.2	11.0	2.0
11000.0	683.1	1.9	16.5
12000.0	659.4	6.5	8.4
13000.0	638.0	5.1	2.0
14000.0	612.6	0.7	14.0
15000.0	590.5	-1.8	2.0
16000.0	565.9	-4.3	5.4
17000.0	544.1	-5.6	1.8
18000.0	527.8	-8.3	10.5
19000.0	504.1	-13.9	2.0
20000.0	488.4	-11.1	9.0
21000.0	465.3	-14.1	11.7
22000.0	451.3	-16.2	4.0
23000.0	430.1	-17.6	20.3
24000.0	410.7	-20.8	44.8
25000.0	393.5	-22.4	54.1
26000.0	378.3	-27.8	39.2
27000.0	363.4	-28.4	48.6
28000.0	346.8	-30.3	63.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	25.2	90.9
1000.0	983.1	17.2	93.9
2000.0	949.6	20.2	43.3
3000.0	919.7	18.8	36.9
4000.0	880.8	18.3	37.7
5000.0	849.5	15.7	37.7
6000.0	823.4	16.4	38.0
7000.0	796.7	9.1	28.7
8000.0	766.9	8.4	28.3
9000.0	741.5	11.0	34.5
10000.0	706.9	5.9	24.6
11000.0	682.1	6.2	23.2
12000.0	660.2	4.3	12.1
13000.0	637.8	-1.4	7.4
14000.0	609.1	0.5	9.8
15000.0	590.3	-7.4	16.9
16000.0	566.9	-7.7	13.9
17000.0	543.8	-7.6	7.1
18000.0	524.5	-8.5	22.4
19000.0	508.0	-9.0	11.9
20000.0	484.3	-14.6	10.3
21000.0	462.9	-16.8	6.8
22000.0	446.3	-15.8	6.5
23000.0	430.7	-16.7	0.9
24000.0	410.8	-25.6	45.6
25000.0	396.0	-19.5	64.2
26000.0	375.6	-30.3	42.3
27000.0	361.0	-31.3	61.9
28000.0	348.3	-30.9	60.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.0	26.1	97.4
1000.0	979.7	22.6	93.8
2000.0	950.2	19.2	47.5
3000.0	915.1	19.9	44.2
4000.0	880.1	18.2	48.4
5000.0	851.3	15.3	29.0
6000.0	823.4	13.7	20.1
7000.0	795.7	12.6	33.9
8000.0	765.1	10.1	28.3
9000.0	739.9	10.9	18.6
10000.0	711.5	6.4	17.2
11000.0	683.6	5.6	12.2
12000.0	660.4	1.5	2.0
13000.0	636.6	1.5	32.4
14000.0	609.8	1.8	2.0
15000.0	590.0	-2.4	12.7
16000.0	563.6	-4.5	15.9
17000.0	545.5	-6.6	2.4
18000.0	524.9	-10.1	2.0
19000.0	504.8	-11.5	9.7
20000.0	484.8	-16.6	3.5
21000.0	462.7	-15.7	5.2
22000.0	446.9	-17.2	3.5
23000.0	430.3	-21.8	5.0
24000.0	410.7	-19.2	51.3
25000.0	392.0	-24.7	48.9
26000.0	381.0	-26.1	58.4
27000.0	360.1	-26.0	44.9
28000.0	348.3	-35.2	58.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.2	93.3
1000.0	982.7	23.2	83.7
2000.0	949.7	23.6	29.3
3000.0	917.7	18.7	37.0
4000.0	879.1	17.8	46.7
5000.0	850.9	20.3	37.6
6000.0	821.5	14.6	24.1
7000.0	796.9	13.8	25.3
8000.0	767.5	8.9	39.7
9000.0	740.1	13.9	31.1
10000.0	708.9	8.1	12.2
11000.0	683.0	6.8	9.4
12000.0	658.8	6.0	17.7
13000.0	637.7	0.8	9.7
14000.0	609.5	0.7	5.8
15000.0	590.8	-0.6	2.0
16000.0	565.9	-6.1	18.2
17000.0	542.6	-7.3	10.3
18000.0	529.0	-7.4	12.0
19000.0	505.3	-10.6	4.1
20000.0	484.6	-12.0	16.3
21000.0	463.2	-18.1	16.8
22000.0	449.4	-12.7	22.5
23000.0	425.9	-16.6	17.2
24000.0	410.9	-21.3	37.4
25000.0	396.9	-24.8	69.8
26000.0	378.1	-29.2	39.0
27000.0	362.8	-30.5	46.5
28000.0	347.2	-32.4	64.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.6	87.7
1000.0	983.4	18.0	98.5
2000.0	952.0	23.2	29.7
3000.0	916.1	20.2	28.4
4000.0	879.1	17.8	49.8
5000.0	853.3	14.3	34.5
6000.0	824.5	19.3	43.6
7000.0	795.7	15.5	24.7
8000.0	766.9	11.7	29.2
9000.0	740.3	9.1	21.0
10000.0	709.0	10.0	15.0
11000.0	684.7	7.4	18.0
12000.0	661.0	1.3	2.0
13000.0	635.7	2.5	4.8
14000.0	607.8	1.1	3.2
15000.0	589.8	-0.3	5.0
16000.0	567.0	-3.1	2.0
17000.0	544.4	-8.3	2.8
18000.0	525.4	-9.6	12.7
19000.0	504.6	-12.0	1.3
20000.0	485.1	-14.9	6.3
21000.0	468.4	-19.2	2.0
22000.0	445.2	-18.8	1.1
23000.0	426.4	-20.4	2.0
24000.0	411.2	-21.8	43.2
25000.0	394.8	-25.5	54.1
26000.0	379.4	-28.3	49.3
27000.0	361.1	-31.6	35.4
28000.0	345.4	-32.9	57.0

FILE: CAL1F

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.0	91.8
1000.0	983.1	15.1	98.0
2000.0	952.1	20.6	19.8
3000.0	916.5	16.5	31.6
4000.0	878.7	18.0	33.8
5000.0	851.3	22.4	30.6
6000.0	822.9	9.5	36.4
7000.0	792.5	19.2	30.6
8000.0	767.3	15.9	26.2
9000.0	739.9	5.7	25.1
10000.0	710.5	10.5	18.7
11000.0	684.0	6.5	19.8
12000.0	661.3	-2.2	2.0
13000.0	638.5	-1.4	13.1
14000.0	613.1	6.3	2.0
15000.0	591.4	2.3	18.5
16000.0	566.7	-0.5	9.0
17000.0	543.0	-3.0	10.6
18000.0	525.7	-12.2	2.0
19000.0	505.6	-13.9	3.0
20000.0	487.8	-15.7	27.2
21000.0	462.9	-15.0	2.0
22000.0	444.5	-17.6	6.8
23000.0	428.0	-21.9	2.0
24000.0	410.1	-23.0	30.9
25000.0	397.8	-22.5	47.5
26000.0	379.6	-23.9	50.1
27000.0	363.0	-25.4	57.5
28000.0	346.6	-28.9	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.3	99.0
1000.0	981.2	25.7	86.3
2000.0	947.9	18.4	54.8
3000.0	918.2	20.1	31.4
4000.0	882.8	26.1	37.5
5000.0	851.2	25.7	30.8
6000.0	821.4	21.5	23.1
7000.0	797.2	9.5	33.9
8000.0	767.8	12.5	34.2
9000.0	738.9	8.7	27.2
10000.0	709.8	12.2	7.3
11000.0	685.2	9.7	16.2
12000.0	657.0	9.9	2.0
13000.0	638.1	-6.1	2.0
14000.0	610.0	0.1	1.7
15000.0	591.2	-5.9	15.2
16000.0	563.8	-4.0	20.1
17000.0	543.8	-1.4	2.7
18000.0	526.0	-12.0	9.7
19000.0	506.7	-8.8	0.5
20000.0	489.2	-20.9	9.0
21000.0	464.3	-17.2	2.0
22000.0	445.4	-22.1	21.0
23000.0	429.3	-16.7	12.3
24000.0	412.7	-22.2	45.0
25000.0	395.6	-21.6	33.5
26000.0	379.3	-28.4	46.7
27000.0	365.8	-30.1	45.2
28000.0	347.3	-27.5	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.2	23.6	86.9
1000.0	983.8	24.2	87.5
2000.0	951.8	18.4	25.3
3000.0	915.8	20.3	50.8
4000.0	879.4	22.0	36.2
5000.0	852.0	18.3	39.4
6000.0	824.7	11.9	14.8
7000.0	794.1	17.7	35.5
8000.0	767.7	5.5	28.0
9000.0	739.4	16.1	31.1
10000.0	708.3	7.7	9.0
11000.0	684.0	7.2	17.5
12000.0	659.3	-1.3	25.9
13000.0	635.2	8.1	3.2
14000.0	612.1	-5.1	2.0
15000.0	591.4	-4.9	9.1
16000.0	566.2	-7.2	26.5
17000.0	542.2	-4.1	2.0
18000.0	528.9	-15.6	11.0
19000.0	505.3	-11.7	12.0
20000.0	485.2	-14.4	13.5
21000.0	466.5	-15.6	17.5
22000.0	446.1	-19.6	1.9
23000.0	429.6	-10.5	17.7
24000.0	408.6	-25.5	54.2
25000.0	396.6	-21.9	54.7
26000.0	379.0	-31.4	42.3
27000.0	362.5	-33.3	28.2
28000.0	349.0	-33.5	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.3	79.5
1000.0	979.5	21.5	93.3
2000.0	949.6	23.7	47.8
3000.0	915.8	23.0	28.2
4000.0	880.3	21.5	32.4
5000.0	853.4	19.0	23.7
6000.0	825.8	15.1	33.6
7000.0	793.5	8.6	45.4
8000.0	767.5	11.7	30.8
9000.0	738.2	5.8	25.7
10000.0	709.8	12.5	27.1
11000.0	685.2	11.5	3.4
12000.0	656.6	3.8	2.0
13000.0	638.7	1.6	12.3
14000.0	610.1	0.9	6.8
15000.0	587.9	-2.2	2.0
16000.0	563.6	-0.9	1.8
17000.0	544.2	-0.9	8.2
18000.0	524.0	-10.4	14.8
19000.0	504.5	-20.0	9.8
20000.0	485.5	-12.9	11.4
21000.0	465.1	-14.2	5.1
22000.0	449.6	-21.5	0.4
23000.0	429.1	-17.7	4.2
24000.0	411.3	-23.5	42.4
25000.0	396.6	-29.6	59.8
26000.0	379.1	-27.1	57.7
27000.0	361.8	-34.5	50.0
28000.0	347.5	-28.7	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	19.2	91.8
1000.0	981.6	27.9	77.4
2000.0	950.4	19.2	26.8
3000.0	913.0	15.8	41.2
4000.0	882.6	18.1	40.8
5000.0	853.7	16.6	37.0
6000.0	823.1	16.3	49.4
7000.0	794.0	13.5	32.5
8000.0	767.5	10.9	19.1
9000.0	741.0	2.8	20.4
10000.0	711.4	13.8	28.2
11000.0	683.2	8.2	11.4
12000.0	658.7	4.0	11.3
13000.0	635.9	-2.6	7.5
14000.0	610.6	2.6	16.7
15000.0	590.7	0.0	22.8
16000.0	563.5	-6.5	18.4
17000.0	543.3	-5.1	6.9
18000.0	524.5	3.3	2.0
19000.0	505.7	-7.4	7.1
20000.0	485.3	-12.5	7.2
21000.0	463.0	-12.7	19.6
22000.0	445.5	-21.9	15.2
23000.0	429.3	-14.5	12.5
24000.0	411.1	-17.9	43.3
25000.0	394.1	-25.5	57.2
26000.0	378.5	-24.5	51.8
27000.0	360.0	-19.6	46.2
28000.0	345.3	-27.9	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.4	22.5	93.3
1000.0	982.9	16.0	98.0
2000.0	949.5	16.7	15.7

3000.0	915.4	24.9	33.8
4000.0	880.7	26.6	48.7
5000.0	851.6	18.8	42.4
6000.0	822.6	17.4	18.5
7000.0	796.2	17.3	36.4
8000.0	767.3	11.0	26.1
9000.0	742.2	2.4	16.1
10000.0	710.2	13.7	2.0
11000.0	683.1	-1.8	16.5
12000.0	659.4	8.3	8.4
13000.0	638.0	7.8	2.0
14000.0	612.6	1.7	14.0
15000.0	590.5	-1.2	2.0
16000.0	565.9	-3.4	5.4
17000.0	544.1	-4.1	1.8
18000.0	527.8	-8.4	10.5
19000.0	504.1	-17.1	2.0
20000.0	488.4	-9.4	9.0
21000.0	465.3	-12.8	11.7
22000.0	451.3	-15.2	4.0
23000.0	430.1	-16.3	20.3
24000.0	410.7	-19.8	44.8
25000.0	393.5	-20.5	54.1
26000.0	378.3	-28.4	39.2
27000.0	363.4	-27.1	48.6
28000.0	346.8	-28.7	63.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	27.8	90.9
1000.0	983.1	12.5	93.9
2000.0	949.6	18.5	43.3
3000.0	919.7	17.2	36.9
4000.0	880.8	17.5	37.7
5000.0	849.5	14.0	37.7
6000.0	823.4	16.6	38.0
7000.0	796.7	3.8	28.7
8000.0	766.9	4.8	28.3
9000.0	741.5	12.4	34.5
10000.0	706.9	3.5	24.6
11000.0	682.1	6.7	23.2
12000.0	660.2	3.8	12.1
13000.0	637.8	-5.1	7.4
14000.0	609.1	1.3	9.8
15000.0	590.3	-12.2	16.9
16000.0	566.9	-10.1	13.9
17000.0	543.8	-8.2	7.1
18000.0	524.5	-8.9	22.4
19000.0	508.0	-7.2	11.9
20000.0	484.3	-16.4	10.3
21000.0	462.9	-18.2	6.8
22000.0	446.3	-14.4	6.5
23000.0	430.7	-14.4	0.9
24000.0	410.8	-29.5	45.6
25000.0	396.0	-14.7	64.2
26000.0	375.6	-33.5	42.3
27000.0	361.0	-32.8	61.9
28000.0	348.3	-29.7	60.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.0	29.6	97.4
1000.0	979.7	23.3	93.8
2000.0	950.2	16.6	47.5
3000.0	915.1	19.6	44.2
4000.0	880.1	17.3	48.4
5000.0	851.3	13.3	29.0
6000.0	823.4	11.3	20.1
7000.0	795.7	10.8	33.9
8000.0	765.1	8.0	28.3
9000.0	739.9	12.4	18.6
10000.0	711.5	4.5	17.2
11000.0	683.6	5.6	12.2
12000.0	660.4	-1.7	2.0
13000.0	636.6	0.5	32.4
14000.0	609.8	4.1	2.0
15000.0	590.0	-2.2	12.7
16000.0	563.6	-3.9	15.[illegible]
17000.0	545.5	-6.2	2.[illegible]
18000.0	524.9	-12.0	2.[illegible]
19000.0	504.8	-12.2	9.[illegible]
20000.0	484.8	-20.5	3.[illegible]
21000.0	462.7	-16.0	5.[illegible]
22000.0	446.9	-17.1	3.[illegible]
23000.0	430.3	-24.6	5.[illegible]
24000.0	410.7	-16.6	51.[illegible]
25000.0	392.0	-25.0	48.[illegible]
26000.0	381.0	-25.0	58.[illegible]
27000.0	360.1	-22.3	44.[illegible]
28000.0	348.3	-38.5	58.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	93.3
1000.0	982.7	24.6	83.7
2000.0	949.7	25.5	29.3
3000.0	917.7	17.1	37.0
4000.0	879.1	16.6	46.7
5000.0	850.9	23.2	37.6
6000.0	821.5	13.1	24.1
7000.0	796.9	13.2	25.3
8000.0	767.5	5.7	39.7
9000.0	740.1	18.3	31.1
10000.0	708.9	8.0	12.2
11000.0	683.0	7.8	9.4
12000.0	658.8	7.3	17.7
13000.0	637.7	-0.8	9.7
14000.0	609.5	1.8	5.8
15000.0	590.8	1.3	2.0
16000.0	565.9	-6.9	18.2
17000.0	542.6	-7.6	10.3
18000.0	529.0	-6.7	12.0
19000.0	505.3	-10.4	4.1
20000.0	484.6	-11.1	16.3
21000.0	463.2	-20.8	16.8
22000.0	449.4	-8.1	22.5
23000.0	425.9	-14.3	17.2
24000.0	410.9	-20.9	37.4
25000.0	396.9	-25.4	69.8
26000.0	378.1	-31.3	39.0
27000.0	362.8	-31.3	46.5
28000.0	347.2	-32.9	64.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	30.7	87.7
1000.0	983.4	14.1	98.5
2000.0	952.0	24.7	29.7
3000.0	916.1	20.2	28.4
4000.0	879.1	16.4	49.8
5000.0	853.3	11.3	34.5
6000.0	824.5	22.4	43.6
7000.0	795.7	16.6	24.7
8000.0	766.9	11.4	29.2
9000.0	740.3	8.7	21.0
10000.0	709.0	11.7	15.0
11000.0	684.7	9.0	18.0
12000.0	661.0	-2.2	2.0
13000.0	635.7	2.5	4.8
14000.0	607.8	2.7	3.2
15000.0	589.8	2.0	5.0
16000.0	567.0	-1.1	2.0
17000.0	544.4	-9.6	2.8
18000.0	525.4	-11.0	12.7
19000.0	504.6	-13.2	1.3
20000.0	485.1	-17.1	6.3
21000.0	468.4	-23.0	2.0
22000.0	445.2	-20.5	1.1
23000.0	426.4	-21.8	2.0
24000.0	411.2	-21.7	43.2
25000.0	394.8	-26.8	54.1
26000.0	379.4	-29.5	49.3
27000.0	361.1	-33.4	35.4
28000.0	345.4	-33.7	57.0

FILE: CAL2A

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMID
0.0	1015.8	15.7	98.0
1000.0	986.2	17.1	80.9
2000.0	949.7	20.4	18.8
3000.0	914.4	19.6	23.6
4000.0	880.4	18.3	33.8
5000.0	852.4	18.4	31.6
6000.0	819.8	13.5	36.4
7000.0	789.1	14.6	31.6
8000.0	765.3	12.0	33.2
9000.0	738.9	7.9	40.1
10000.0	710.6	7.2	38.7
11000.0	683.3	4.8	40.8
12000.0	663.5	1.0	20.6
13000.0	639.4	1.3	14.1
14000.0	616.0	1.4	2.0
15000.0	589.5	-1.8	19.5
16000.0	568.6	-3.6	3.0
17000.0	542.3	-6.0	10.6
18000.0	523.5	-10.5	2.0
19000.0	503.3	-12.6	9.0
20000.0	486.3	-14.8	34.2
21000.0	461.7	-16.8	8.2
22000.0	442.2	-18.3	18.8
23000.0	426.9	-21.0	2.0
24000.0	407.9	-23.4	12.9
25000.0	397.7	-24.8	44.5
26000.0	379.7	-25.8	34.1
27000.0	362.7	-28.0	44.5
28000.0	344.7	-30.8	40.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMID
0.0	1015.8	16.7	98.0
1000.0	983.0	19.8	59.3
2000.0	942.7	19.8	53.8
3000.0	917.3	20.5	23.4
4000.0	887.2	20.3	37.5
5000.0	852.2	19.2	31.8
6000.0	817.3	16.5	23.1
7000.0	796.9	12.2	34.9
8000.0	766.1	11.2	41.2
9000.0	737.2	8.7	42.2
10000.0	709.4	7.6	27.3
11000.0	685.2	5.6	37.2
12000.0	656.3	4.0	18.3
13000.0	638.8	0.1	2.0
14000.0	610.9	-0.2	3.7
15000.0	589.1	-3.9	16.2
16000.0	563.6	-4.5	14.1
17000.0	543.5	-5.6	2.7
18000.0	524.0	-10.4	15.7
19000.0	505.1	-11.3	6.5
20000.0	488.6	-16.1	16.0
21000.0	464.0	-17.4	3.9
22000.0	443.8	-19.4	33.0
23000.0	429.2	-19.7	12.3
24000.0	412.1	-23.2	27.0
25000.0	394.1	-24.6	30.5
26000.0	379.1	-26.9	30.7
27000.0	367.3	-29.2	32.2
28000.0	345.9	-30.5	52.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMID
0.0	1014.9	16.5	95.9
1000.0	987.4	19.4	60.5
2000.0	949.1	19.9	24.3
3000.0	913.3	20.6	42.8
4000.0	881.6	19.3	36.2
5000.0	853.5	17.3	40.4
6000.0	822.9	14.1	14.8
7000.0	791.7	14.2	36.5
8000.0	766.0	9.5	35.0
9000.0	738.0	10.5	46.1
10000.0	706.9	6.5	29.0
11000.0	683.2	5.0	38.5
12000.0	660.2	1.2	49.9
13000.0	633.8	3.6	4.2
14000.0	614.3	-1.5	0.9
15000.0	589.4	-3.6	10.1
16000.0	567.6	-5.3	20.5
17000.0	541.0	-6.3	2.0
18000.0	528.7	-11.4	17.0
19000.0	502.7	-12.0	18.0
20000.0	482.0	-14.5	20.5
21000.0	467.8	-17.0	26.5
22000.0	444.9	-18.8	13.9
23000.0	429.7	-18.2	17.7
24000.0	405.3	-24.0	36.2
25000.0	395.8	-24.7	51.7
26000.0	378.7	-27.7	26.3
27000.0	361.9	-30.0	15.2
28000.0	348.7	-32.0	53.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMID
0.0	1015.8	17.2	88.5
1000.0	980.3	18.7	66.3
2000.0	945.5	21.2	46.8
3000.0	913.4	21.3	20.2
4000.0	883.1	19.2	32.4
5000.0	855.8	17.5	24.7
6000.0	824.6	14.9	33.6
7000.0	790.7	11.9	46.4
8000.0	765.6	11.0	37.8
9000.0	736.1	8.0	40.7
10000.0	709.4	7.7	47.1
11000.0	685.2	6.0	24.4
12000.0	655.6	2.5	17.2
13000.0	639.7	2.0	13.3
14000.0	611.0	0.0	8.8
15000.0	583.7	-2.9	2.0
16000.0	563.3	-3.7	2.0
17000.0	544.3	-5.5	8.2
18000.0	520.6	-10.1	20.8
19000.0	501.3	-14.1	15.8
20000.0	482.5	-14.1	18.4
21000.0	465.4	-16.6	14.1
22000.0	450.7	-19.3	12.4
23000.0	428.8	-20.0	4.2
24000.0	409.8	-23.5	24.4
25000.0	395.7	-26.6	56.8
26000.0	378.8	-26.6	41.7
27000.0	360.7	-30.3	37.0
28000.0	346.1	-30.8	66.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMID
0.0	1015.8	15.4	98.0
1000.0	983.8	20.3	50.4
2000.0	946.8	20.0	25.8
3000.0	908.7	19.5	33.2
4000.0	887.0	18.4	40.8
5000.0	856.3	16.9	38.0
6000.0	820.2	15.2	49.4
7000.0	791.5	13.2	33.5
8000.0	765.7	10.8	26.1
9000.0	740.8	7.2	35.4
10000.0	712.0	8.0	48.2
11000.0	681.9	5.2	32.4
12000.0	659.1	2.5	35.3
13000.0	635.0	1.0	8.5
14000.0	611.9	0.4	18.7
15000.0	588.2	-2.4	23.8
16000.0	563.3	-5.1	12.4
17000.0	542.7	-6.5	6.9
18000.0	521.5	-6.6	2.3
19000.0	503.4	-10.9	13.1
20000.0	482.1	-14.0	14.2
21000.0	461.9	-16.2	28.6
22000.0	443.9	-19.4	27.2
23000.0	429.1	-19.2	12.5
24000.0	409.6	-22.1	25.3
25000.0	391.6	-25.6	54.2
26000.0	377.8	-25.9	35.8
27000.0	357.6	-26.6	33.2
28000.0	342.4	-30.6	62.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMID
0.0	1015.3	16.3	98.0
1000.0	985.8	17.3	76.3
2000.0	945.3	19.4	14.7

3000.0	912.6	21.8	25.8
4000.0	883.7	20.5	48.7
5000.0	852.8	17.5	43.4
6000.0	819.3	15.5	18.5
7000.0	795.2	14.1	37.4
8000.0	765.3	10.8	33.1
9000.0	742.7	7.1	31.1
10000.0	710.1	8.0	19.4
11000.0	681.7	2.7	37.5
12000.0	660.3	3.6	32.4
13000.0	638.6	3.5	2.0
14000.0	615.2	0.2	16.0
15000.0	588.0	-2.7	0.8
16000.0	567.1	-4.4	2.0
17000.0	544.1	-6.3	1.8
18000.0	526.9	-9.6	16.5
19000.0	500.7	-13.4	3.5
20000.0	487.4	-13.3	16.0
21000.0	465.7	-16.3	20.7
22000.0	453.6	-17.7	16.0
23000.0	430.5	-19.6	20.3
24000.0	408.9	-22.6	26.8
25000.0	390.6	-24.3	51.1
26000.0	377.4	-26.9	23.2
27000.0	363.4	-28.4	35.6
28000.0	345.0	-30.8	62.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	17.6	99.9
1000.0	986.2	16.4	66.9
2000.0	945.5	19.9	42.3
3000.0	919.8	19.8	28.9
4000.0	884.0	18.2	37.7
5000.0	849.3	16.3	38.7
6000.0	820.7	15.3	38.0
7000.0	796.0	10.8	29.7
8000.0	764.6	9.3	35.3
9000.0	741.5	9.6	49.5
10000.0	704.6	5.4	44.6
11000.0	680.2	4.8	44.2
12000.0	661.7	2.5	36.1
13000.0	638.2	0.3	8.4
14000.0	609.4	0.1	11.8
15000.0	587.6	-5.4	17.9
16000.0	568.8	-6.0	7.9
17000.0	543.6	-7.3	7.1
18000.0	521.5	-9.7	28.4
19000.0	507.2	-10.9	17.9
20000.0	480.5	-15.0	17.3
21000.0	461.8	-17.6	15.8
22000.0	445.2	-17.5	18.5
23000.0	431.4	-19.1	0.9
24000.0	409.0	-25.0	27.6
25000.0	394.7	-22.9	61.2
26000.0	373.0	-28.2	26.3
27000.0	359.4	-29.9	48.9
28000.0	347.4	-31.0	59.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.7	18.1	98.0
1000.0	980.6	19.2	66.8
2000.0	946.5	19.4	46.5
3000.0	912.2	20.4	36.2
4000.0	882.8	18.1	48.4
5000.0	852.3	16.1	30.0
6000.0	820.8	14.0	20.1
7000.0	794.3	12.5	34.9
8000.0	761.7	10.1	35.3
9000.0	738.8	9.6	33.6
10000.0	712.2	5.6	37.2
11000.0	682.7	4.6	33.2
12000.0	662.0	1.1	20.0
13000.0	636.2	1.7	33.4
14000.0	610.6	0.8	1.4
15000.0	587.2	-2.9	13.7
16000.0	563.4	-4.5	9.9
17000.0	546.4	-6.8	2.4
18000.0	522.1	-10.4	6.0
19000.0	501.9	-12.1	15.7
20000.0	481.3	-16.0	10.5
21000.0	461.4	-17.1	14.2
22000.0	446.3	-18.2	15.5
23000.0	430.9	-21.7	5.0
24000.0	408.8	-21.8	33.3
25000.0	388.1	-25.5	45.9
26000.0	381.9	-26.1	42.4
27000.0	357.9	-27.2	31.9
28000.0	347.4	-33.2	57.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	16.1	98.0
1000.0	985.6	19.5	56.7
2000.0	945.7	21.6	28.3
3000.0	916.5	19.8	29.0
4000.0	881.2	18.0	46.7
5000.0	851.6	18.6	38.6
6000.0	817.6	14.4	24.1
7000.0	796.4	13.1	26.3
8000.0	765.7	9.5	46.7
9000.0	739.3	11.1	46.1
10000.0	707.9	6.5	32.2
11000.0	681.7	5.1	30.4
12000.0	659.3	3.3	41.7
13000.0	638.1	1.4	10.7
14000.0	610.0	0.3	7.8
15000.0	588.5	-2.0	2.0
16000.0	567.3	-5.2	12.2
17000.0	541.5	-7.1	10.3
18000.0	529.0	-9.1	18.0
19000.0	502.7	-11.7	10.1
20000.0	481.0	-13.7	23.3
21000.0	462.2	-18.3	25.8
22000.0	450.5	-15.9	34.5
23000.0	423.5	-19.1	17.2
24000.0	409.2	-22.9	19.4
25000.0	396.3	-25.6	66.8
26000.0	377.3	-27.7	23.0
27000.0	362.3	-29.5	33.5
28000.0	345.7	-31.8	63.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	18.3	96.7
1000.0	986.7	16.8	71.5
2000.0	949.5	21.4	28.7
3000.0	913.9	20.6	20.4
4000.0	881.1	17.9	49.8
5000.0	855.7	15.6	35.5
6000.0	822.6	16.8	43.6
7000.0	794.4	14.0	25.7
8000.0	764.6	10.9	36.2
9000.0	739.6	8.7	36.0
10000.0	708.0	7.5	35.0
11000.0	684.5	5.4	39.0
12000.0	663.0	1.0	17.8
13000.0	634.8	2.2	5.8
14000.0	607.1	0.5	5.2
15000.0	586.8	-1.9	6.0
16000.0	569.0	-3.8	2.0
17000.0	544.7	-7.7	2.8
18000.0	523.0	-10.2	18.7
19000.0	501.5	-12.4	7.3
20000.0	481.9	-15.2	13.3
21000.0	470.8	-18.8	6.6
22000.0	443.5	-19.0	13.1
23000.0	424.3	-21.0	2.0
24000.0	409.7	-23.1	25.2
25000.0	392.8	-25.9	51.1
26000.0	379.3	-27.2	33.3
27000.0	359.6	-30.0	22.4
28000.0	342.7	-32.0	56.0

FILE: CAL8F

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	12.5	97.8
1000.0	985.5	6.7	98.0
2000.0	951.2	18.5	9.8
3000.0	915.4	14.4	24.6
4000.0	881.3	15.2	42.8
5000.0	852.2	20.2	29.6
6000.0	820.4	6.4	41.4
7000.0	790.6	15.9	42.6
8000.0	766.0	12.7	37.2
9000.0	735.0	2.4	45.1
10000.0	710.0	6.3	51.7
11000.0	683.3	2.6	53.8
12000.0	659.9	-7.8	45.6
13000.0	635.7	-6.5	40.1
14000.0	612.3	2.9	52.0
15000.0	587.3	0.4	86.5
16000.0	565.6	-2.3	83.0
17000.0	540.0	-4.6	87.6
18000.0	521.4	-14.6	58.2
19000.0	500.8	-15.4	51.0
20000.0	482.3	-16.7	40.2
21000.0	461.1	-15.6	29.2
22000.0	442.2	-18.8	42.8
23000.0	424.8	-23.8	34.2
24000.0	407.5	-23.9	14.9
25000.0	394.7	-23.4	14.5
26000.0	377.3	-24.6	25.1
27000.0	360.1	-26.0	54.5
28000.0	344.7	-29.3	10.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	16.8	98.0
1000.0	983.6	17.3	82.3
2000.0	947.0	16.3	44.8
3000.0	917.1	18.0	24.4
4000.0	885.4	23.3	46.5
5000.0	852.1	23.5	29.8
6000.0	818.9	18.4	28.1
7000.0	795.3	6.2	45.9
8000.0	766.5	9.3	45.2
9000.0	734.0	5.4	47.2
10000.0	709.3	8.0	40.3
11000.0	684.5	5.8	50.2
12000.0	655.6	4.3	43.3
13000.0	635.3	-11.2	25.4
14000.0	609.2	-3.3	57.7
15000.0	587.1	-7.8	83.2
16000.0	562.6	-5.8	94.1
17000.0	540.8	-3.0	79.7
18000.0	521.7	-14.4	76.7
19000.0	501.9	-10.3	48.5
20000.0	483.7	-21.9	22.0
21000.0	462.5	-17.8	24.9
22000.0	443.1	-23.3	57.0
23000.0	426.1	-18.6	48.3
24000.0	410.1	-23.1	29.0
25000.0	392.5	-22.5	0.5
26000.0	377.0	-29.1	21.7
27000.0	362.9	-30.7	42.2
28000.0	345.4	-27.9	22.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	16.1	92.9
1000.0	986.2	15.8	83.5
2000.0	950.9	16.3	15.3
3000.0	914.7	18.2	43.8
4000.0	882.0	19.2	45.2
5000.0	852.9	16.1	38.4
6000.0	822.2	8.8	19.8
7000.0	792.2	14.4	47.5
8000.0	766.4	2.3	39.0
9000.0	734.5	12.8	51.1
10000.0	707.8	3.5	42.0
11000.0	683.3	3.3	51.5
12000.0	657.9	-6.9	74.9
13000.0	632.4	3.0	30.2
14000.0	611.3	-8.5	54.9
15000.0	587.3	-6.8	77.1
16000.0	565.1	-9.0	98.0
17000.0	539.2	-5.7	62.4
18000.0	524.6	-18.0	78.0
19000.0	500.5	-13.2	60.0
20000.0	479.7	-15.4	26.5
21000.0	464.7	-16.2	47.5
22000.0	443.8	-20.8	37.9
23000.0	426.4	-12.4	53.7
24000.0	406.0	-26.4	38.2
25000.0	393.5	-22.8	21.7
26000.0	376.7	-32.1	17.3
27000.0	359.6	-33.9	25.2
28000.0	347.1	-33.9	23.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	18.8	85.5
1000.0	981.9	13.1	89.3
2000.0	948.7	21.6	37.8
3000.0	914.7	20.9	21.2
4000.0	882.9	18.7	41.4
5000.0	854.3	16.8	22.7
6000.0	823.3	12.0	38.6
7000.0	791.6	5.3	57.4
8000.0	766.2	8.5	41.8
9000.0	733.3	2.5	45.7
10000.0	709.3	8.3	60.1
11000.0	684.5	7.6	37.4
12000.0	655.2	-1.8	42.2
13000.0	635.9	-3.5	39.3
14000.0	609.3	-2.5	62.8
15000.0	583.8	-4.1	61.0
16000.0	562.5	-2.7	75.8
17000.0	541.2	-2.5	85.2
18000.0	519.7	-12.8	81.8
19000.0	499.7	-21.5	57.8
20000.0	480.0	-13.9	24.4
21000.0	463.3	-14.8	35.1
22000.0	447.3	-22.7	36.4
23000.0	425.9	-19.6	40.2
24000.0	408.7	-24.4	26.4
25000.0	393.5	-30.5	26.8
26000.0	376.8	-27.8	32.7
27000.0	358.9	-35.1	47.0
28000.0	345.6	-29.1	36.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	11.7	97.8
1000.0	984.0	19.5	73.4
2000.0	949.5	17.1	16.8
3000.0	911.9	13.7	34.2
4000.0	885.2	15.3	49.8
5000.0	854.6	14.4	36.0
6000.0	820.6	13.2	54.4
7000.0	792.1	10.2	44.5
8000.0	766.2	7.7	30.1
9000.0	736.1	-0.5	40.4
10000.0	710.9	9.6	61.2
11000.0	682.5	4.3	45.4
12000.0	657.3	-1.6	60.3
13000.0	633.1	-7.7	34.5
14000.0	609.8	-0.8	72.7
15000.0	586.6	-1.9	90.8
16000.0	562.4	-8.3	92.4
17000.0	540.3	-6.7	83.9
18000.0	520.2	0.9	63.3
19000.0	500.9	-8.9	55.1
20000.0	479.8	-13.5	20.2
21000.0	461.2	-13.3	49.6
22000.0	443.2	-23.1	51.2
23000.0	426.1	-16.4	48.5
24000.0	408.5	-18.8	27.3
25000.0	391.0	-26.4	24.2
26000.0	376.2	-25.2	26.8
27000.0	357.1	-20.2	43.2
28000.0	343.4	-28.3	32.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	15.0	99.3
1000.0	985.3	7.6	99.3
2000.0	948.6	14.6	5.7

3000.0	914.3	22.8	26.8
4000.0	883.3	23.8	57.7
5000.0	852.5	16.6	41.4
6000.0	820.1	14.3	23.5
7000.0	794.3	14.0	48.4
8000.0	766.0	7.8	37.1
9000.0	737.3	-0.9	36.1
10000.0	709.7	9.5	32.4
11000.0	682.4	-5.7	50.5
12000.0	658.0	2.7	57.4
13000.0	635.2	2.7	25.7
14000.0	611.8	-1.7	70.0
15000.0	586.4	-3.1	67.8
16000.0	564.8	-5.2	79.4
17000.0	541.1	-5.7	78.8
18000.0	523.5	-10.8	77.5
19000.0	499.3	-18.6	45.5
20000.0	482.9	-10.4	22.0
21000.0	463.5	-13.4	41.7
22000.0	449.0	-16.4	40.0
23000.0	426.9	-18.2	56.3
24000.0	408.1	-20.7	28.8
25000.0	390.4	-21.4	21.1
26000.0	376.0	-29.1	14.2
27000.0	360.5	-27.7	45.6
28000.0	344.9	-29.1	32.7

RESULTS OF THE REPLICATION # 7

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	20.3	96.9
1000.0	985.5	4.1	89.9
2000.0	948.7	16.4	33.3
3000.0	918.6	15.1	29.9
4000.0	883.4	14.7	46.7
5000.0	850.4	11.8	36.7
6000.0	820.9	13.5	43.0
7000.0	794.8	0.5	40.7
8000.0	765.6	1.6	39.3
9000.0	736.6	9.1	54.5
10000.0	706.4	-0.7	57.6
11000.0	681.4	2.8	57.2
12000.0	658.8	-1.8	61.1
13000.0	635.0	-10.2	34.4
14000.0	608.3	-2.1	65.8
15000.0	586.2	-14.1	84.9
16000.0	565.8	-11.9	87.9
17000.0	540.8	-9.8	84.1
18000.0	520.2	-11.3	89.4
19000.0	503.2	-8.7	59.9
20000.0	478.8	-17.4	23.3
21000.0	461.1	-18.8	36.8
22000.0	444.0	-15.6	42.5
23000.0	427.5	-16.3	36.9
24000.0	408.2	-30.4	29.6
25000.0	392.9	-15.6	31.2
26000.0	373.3	-34.2	17.3
27000.0	358.1	-33.4	58.9
28000.0	346.4	-30.1	29.9

RESULTS OF THE REPLICATION # 8

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	22.1	98.0
1000.0	982.1	14.9	89.8
2000.0	949.3	14.5	37.5
3000.0	914.0	17.5	37.2
4000.0	882.7	14.5	57.4
5000.0	852.2	11.1	28.0
6000.0	820.9	8.2	25.1
7000.0	793.8	7.5	45.9
8000.0	763.8	4.8	39.3
9000.0	735.0	9.1	38.6
10000.0	711.0	0.3	50.2
11000.0	682.9	1.7	46.2
12000.0	659.0	-7.3	45.0
13000.0	633.8	-4.6	59.4
14000.0	609.0	0.7	55.4
15000.0	585.9	-4.1	80.7
16000.0	562.5	-5.7	89.9
17000.0	542.5	-7.8	79.4
18000.0	520.6	-14.4	66.9
19000.0	500.0	-13.7	57.7
20000.0	479.3	-21.5	16.5
21000.0	460.9	-16.6	35.2
22000.0	444.6	-18.3	39.5
23000.0	427.1	-26.5	41.0
24000.0	408.1	-17.5	35.3
25000.0	388.9	-25.9	15.9
26000.0	378.7	-25.7	33.4
27000.0	357.2	-22.9	41.9
28000.0	346.4	-38.9	27.7

RESULTS OF THE REPLICATION # 9

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	14.2	99.3
1000.0	985.1	16.2	79.7
2000.0	948.8	23.4	19.3
3000.0	916.6	15.0	30.0
4000.0	881.7	13.8	55.7
5000.0	851.8	21.0	36.6
6000.0	819.0	10.0	29.1
7000.0	795.0	9.9	37.3
8000.0	766.2	2.5	50.7
9000.0	735.2	15.0	51.1
10000.0	708.4	3.8	45.2
11000.0	682.3	3.9	43.4
12000.0	657.4	1.7	66.7
13000.0	634.9	-5.9	36.7
14000.0	608.7	-1.6	61.8
15000.0	586.7	-0.6	62.4
16000.0	564.8	-8.7	92.2
17000.0	539.6	-9.2	87.3
18000.0	524.7	-9.1	79.0
19000.0	500.5	-11.9	52.1
20000.0	479.1	-12.1	29.3
21000.0	461.4	-21.4	46.8
22000.0	447.1	-9.3	58.5
23000.0	422.7	-16.2	53.2
24000.0	408.3	-21.8	21.4
25000.0	393.8	-26.3	36.8
26000.0	375.8	-32.0	14.0
27000.0	359.9	-31.9	43.5
28000.0	345.3	-33.3	33.1

RESULTS OF THE REPLICATION # 10

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	23.2	93.7
1000.0	985.8	5.7	94.5
2000.0	951.1	22.6	19.7
3000.0	915.0	18.1	21.4
4000.0	881.7	13.6	58.8
5000.0	854.2	9.1	33.5
6000.0	822.0	19.3	48.6
7000.0	793.8	13.3	36.7
8000.0	765.6	8.2	40.2
9000.0	735.4	5.4	41.0
10000.0	708.5	7.5	48.0
11000.0	684.0	5.1	52.0
12000.0	659.6	-7.8	42.8
13000.0	632.9	-2.6	31.8
14000.0	607.0	-0.7	59.2
15000.0	585.7	0.1	73.0
16000.0	565.9	-2.9	66.5
17000.0	541.4	-11.2	79.8
18000.0	521.1	-13.4	79.7
19000.0	499.8	-14.7	49.3
20000.0	479.6	-18.1	19.3
21000.0	466.6	-23.6	27.6
22000.0	442.9	-21.7	37.1
23000.0	423.2	-23.7	23.7
24000.0	408.6	-22.6	27.2
25000.0	391.7	-27.7	21.1
26000.0	377.1	-30.2	24.3
27000.0	358.2	-34.0	32.4
28000.0	343.5	-34.1	26.0

APPENDIX 5

UFLR PREDICTED PERFORMANCES FOR UNDITHERED ATMOSPHERIC PROFILES

UFLR output for CAL1

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.9	2.7	1.2	6.8	4.0	1.9	7.9	5.6	2.6	8.1	5.8	2.6
1000	5.9	2.7	1.2	6.8	4.0	1.9	7.9	5.6	2.6	8.1	5.8	2.6
1500	6.4	2.8	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
2000	7.3	2.9	1.0	8.6	4.5	2.0	10.3	7:1	3.3	10.5	7.4	3.5
2500	8.1	3.0	1.1	9.6	4.8	1.8	11.6	7.8	3.6	12.0	8.3	3.9
3000	8.8	3.0	1.2	10.5	4.9	1.7	12.8	8.3	3.9	13.2	8.9	4.2
3500	9.4	3.0	1.3	11.3	5.0	1.7	13.8	8.8	4.2	14.3	9.4	4.4
4000	9.9	2.9	1.4	12.0	5.1	1.8	14.8	9.2	4.3	15.3	9.9	4.7
5000	10.8	2.9	1.4	13.2	5.2	2.0	16.5	9.8	4.1	17.1	10.7	4.9
7500	12.8	3.1	1.4	15.9	5.1	2.4	20.4	10.8	3.9	21.2	11.9	4.5
10000	14.6	3.5	0.0	18.3	5.2	2.5	23.9	11.7	4.3	25.0	12.9	4.7
15000	17.4	3.6	0.0	22.7	5.8	2.6	30.2	11.8	5.4	31.7	13.7	5.8
20000	20.3	3.6	0.0	26.0	6.2	0.0	35.3	11.9	5.7	37.1	13.7	6.7
25000	22.6	0.0	0.0	28.5	6.3	0.0	39.8	12.3	6.0	41.8	13.9	6.7
30000	24.5	0.0	0.0	31.3	6.4	0.0	43.4	12.8	6.0	45.8	14.4	7.0

UFLR output for CAL2

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.1	3.1	1.4	9.6	4.8	2.2	11.6	7.7	3.7	11.9	8.2	3.9
1000	8.8	3.1	1.3	10.5	4.9	2.3	12.8	8.3	4.0	13.2	8.9	4.3
1500	9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.3	14.6	9.5	4.6
2000	10.3	3.2	1.1	12.5	5.3	2.4	15.5	9.4	4.6	16.0	10.2	4.9
2500	11.0	3.3	1.1	13.4	5.4	2.0	16.8	9.9	4.7	17.4	10.8	5.2
3000	11.6	3.3	1.2	14.3	5.5	1.9	18.0	10.3	4.8	18.6	11.3	5.4
3500	12.1	3.2	1.3	14.9	5.5	1.9	18.9	10.6	4.8	19.7	11.6	5.4
4000	12.5	3.1	1.4	15.5	5.6	1.9	19.7	10.8	5.0	20.5	11.9	5.4
5000	13.2	3.0	1.4	16.4	5.7	2.1	21.0	11.1	4.8	21.8	12.3	5.9
7500	14.7	3.2	1.5	18.5	5.3	2.5	24.1	11.7	4.1	25.1	13.2	4.9
10000	16.0	3.5	0.0	20.2	5.3	2.5	26.6	12.2	4.4	27.8	13.6	4.9
15000	18.1	3.6	0.0	23.5	5.8	2.6	31.3	12.0	5.5	32.8	14.0	5.8
20000	20.4	3.7	0.0	26.0	6.2	0.0	35.1	12.0	5.7	36.9	13.8	6.8
25000	22.3	0.0	0.0	28.0	6.3	0.0	38.4	12.3	6.0	40.3	13.9	6.7
30000	23.7	0.0	0.0	30.1	6.4	0.0	40.8	12.8	6.0	42.9	14.3	7.0

UFLR output for CAL3

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.0	3.0	1.4	9.5	4.7	2.2	11.5	7.7	3.7	11.9	8.1	3.9
1000	8.2	3.1	1.3	9.7	4.8	2.2	11.8	7.8	3.8	12.2	8.3	4.0
1500	9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.1	13.7	9.1	4.4
2000	10.2	3.2	1.1	12.4	5.3	2.4	15.3	9.4	4.6	15.9	10.2	4.9
2500	11.2	3.3	1.1	13.7	5.5	2.1	17.1	10.0	4.8	17.7	11.0	5.3
3000	11.9	3.4	1.2	14.6	5.6	1.9	18.4	10.5	4.8	19.1	11.5	5.5
3500	12.4	3.2	1.3	15.3	5.6	1.9	19.5	10.8	4.9	20.2	11.8	5.5
4000	12.9	3.1	1.4	16.1	5.6	1.9	20.5	11.0	5.0	21.3	12.2	5.6
5000	14.0	3.0	1.4	17.5	5.9	2.1	22.5	11.6	5.0	23.4	12.8	6.0
7500	15.9	3.2	1.5	20.2	5.4	2.6	26.3	12.2	4.3	27.5	13.8	5.0
10000	17.0	3.5	0.0	21.7	5.3	2.5	28.8	12.6	4.5	30.1	14.1	5.0
15000	19.4	3.6	0.0	25.2	5.8	2.6	33.8	12.4	5.5	35.5	14.5	5.9
20000	21.3	3.7	0.0	27.6	6.3	0.0	37.5	12.2	5.8	39.4	14.1	6.9
25000	23.2	0.0	0.0	29.3	6.4	0.0	40.6	12.4	6.0	42.6	14.1	6.8
30000	24.7	0.0	0.0	31.4	6.4	0 0	43.1	12.9	6.1	45.3	14.4	7.1

UFLR output for CAL4

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	6.0	2.8	1.2	6.9	4.0	1.9	8.1	5.7	2.6	8.2	5.9	2.7
1000	6.3	2.8	1.2	7.3	4.2	2.0	8.6	6.0	2.8	8.8	6.3	2.9
1500	6.9	2.9	1.1	8.0	4.4	2.0	9.5	6.6	3.1	9.8	6.9	3.2
2000	7.7	3.0	1.0	9.1	4.7	2.1	10.9	7.4	3.5	11.3	7.8	3.7
2500	8.5	3.1	1.1	10.2	4.9	1.8	12.4	8.1	3.8	12.8	8.7	4.1
3000	9.3	3.1	1.2	11.2	5.0	1.8	13.7	8.7	4.1	14.1	9.4	4.4
3500	9.9	3.0	1.3	12.0	5.1	1.8	14.9	9.2	4.3	15.4	9.9	4.7
4000	10.5	3.0	1.4	12.8	5.2	1.8	15.9	9.6	4.6	16.5	10.4	4.9
5000	11.5	2.9	1.4	14.1	5.4	2.0	17.8	10.2	4.3	18.4	11.2	5.2
7500	13.5	3.1	1.4	16.8	5.1	2.5	21.7	11.1	4.0	22.6	12.4	4.6
10000	15.0	3.5	0.0	18.8	5.2	2.5	24.6	11.9	4.3	25.7	13.1	4.8
15000	17.3	3.6	0.0	22.4	5.8	2.6	29.8	11.7	5.4	31.2	13.6	5.8
20000	19.9	3.6	0.0	25.3	6.2	0.0	34.3	11.8	5.7	35.9	13.6	6.7
25000	22.1	0.0	0.0	27.7	6.3	0.0	38.1	12.2	6.0	40.0	13.8	6.7
30000	23.8	0.0	0.0	30.3	6.4	0.0	41.2	12.7	6.0	43.4	14.2	7.0

UFLR output for CAL5

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.5	3.1	1.4	10.1	4.9	2.2	12.2	8.1	4.0	12.6	8.6	4.2
1000	9.7	3.3	1.3	11.7	5.2	2.3	14.4	9.1	4.5	14.8	9.8	4.8
1500	10.7	3.3	1.2	13.0	5.4	2.3	16.1	9.7	4.7	16.7	10.5	5.2
2000	11.3	3.3	1.1	13.9	5.5	2.4	17.3	10.1	4.9	17.9	11.1	5.4
2500	11.8	3.3	1.1	14.5	5.6	2.1	18.2	10.4	5.0	18.9	11.4	5.6
3000	12.2	3.4	1.2	15.1	5.7	1.9	19.0	10.7	5.0	19.7	11.7	5.7
3500	12.6	3.2	1.3	15.6	5.6	1.9	19.7	10.9	4.9	20.5	12.0	5.6
4000	13.0	3.1	1.4	16.1	5.7	1.9	20.5	11.1	5.1	21.3	12.3	5.6
5000	13.7	3.0	1.4	17.0	5.8	2.1	21.7	11.4	5.0	22.6	12.6	6.0
7500	14.7	3.2	1.5	18.5	5.3	2.6	23.9	11.8	4.2	24.9	13.2	4.9
10000	15.7	3.5	0.0	19.7	5.3	2.5	25.6	12.2	4.4	26.7	13.5	4.9
15000	17.3	3.6	0.0	22.3	5.8	2.6	29.1	11.8	5.5	30.4	13.7	5.8
20000	19.2	3.6	0.0	23.7	6.2	0.0	31.6	11.7	5.7	33.0	13.4	6.7
25000	20.5	0.0	0.0	25.5	6.2	0.0	33.5	12.0	5.9	35.1	13.5	6.6
30000	21.4	0.0	0.0	27.0	6.3	0.0	34.8	12.5	5.9	36.6	13.8	6.9

UFLR output for CAL6

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.4	3.1	1.4	9.9	4.8	2.2	12.1	8.0	3.9	12.4	8.5	4.1
1000	9.4	3.2	1.3	11.3	5.1	2.3	13.8	8.8	4.3	14.3	9.5	4.6
1500	10.2	3.3	1.2	12.3	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
2000	10.8	3.3	1.1	13.1	5.4	2.4	16.4	9.8	4.7	16.9	10.6	5.1
2500	11.4	3.3	1.1	13.9	5.5	2.1	17.5	10.2	4.9	18.1	11.1	5.4
3000	12.0	3.4	1.2	14.8	5.6	1.9	18.7	10.6	4.9	19.4	11.6	5.6
3500	12.6	3.2	1.3	15.6	5.6	1.9	19.8	10.9	4.9	20.6	12.0	5.6
4000	13.1	3.1	1.4	16.3	5.7	1.9	20.7	11.1	5.1	21.6	12.3	5.6
5000	13.8	3.0	1.4	17.2	5.8	2.1	22.0	11.5	5.0	23.0	12.7	6.0
7500	15.0	3.2	1.5	18.9	5.3	2.6	24.6	11.9	4.2	25.6	13.4	4.9
10000	16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
15000	18.1	3.6	0.0	23.4	5.8	2.6	30.8	12.0	5.5	32.3	14.0	5.8
20000	20.1	3.7	0.0	25.4	6.2	0.0	34.0	11.9	5.7	35.5	13.7	6.8
25000	21.5	0.0	0.0	26.9	6.3	0.0	36.2	12.1	6.0	37.9	13.7	6.7
30000	22.6	0.0	0.0	28.6	6.4	0.0	37.7	12.6	6.0	39.7	14.1	7.0

UFLR output for CAL7

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.7	3.0	1.3	9.1	4.6	2.2	10.9	7.4	3.5	11.2	7.8	3.7
1000	8.2	3.1	1.3	9.8	4.8	2.2	11.9	7.9	3.8	12.2	8.4	4.1
1500	9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
2000	9.8	3.2	1.1	11.9	5.2	2.3	14.7	9.2	4.5	15.1	9.8	4.8
2500	10.5	3.3	1.1	12.8	5.3	2.0	15.8	9.6	4.7	16.4	10.4	5.1
3000	11.0	3.3	1.2	13.4	5.4	1.9	16.7	9.9	4.6	17.3	10.8	5.2
3500	11.4	3.2	1.3	13.9	5.4	1.8	17.5	10.2	4.7	18.1	11.1	5.2
4000	11.8	3.1	1.4	14.5	5.5	1.9	18.2	10.4	4.9	18.9	11.4	5.3
5000	12.5	3.0	1.4	15.4	5.6	2.1	19.5	10.8	4.7	20.3	11.9	5.7
7500	13.7	3.1	1.5	17.0	5.2	2.5	21.9	11.3	4.1	22.8	12.6	4.7
10000	14.7	3.5	0.0	18.3	5.2	2.5	23.7	11.8	4.4	24.7	13.0	4.8
15000	16.5	3.6	0.0	20.9	5.7	2.6	27.3	11.5	5.4	28.5	13.2	5.7
20000	18.3	3.6	0.0	22.5	6.1	0.0	29.8	11.5	5.6	31.2	13.0	6.5
25000	19.7	0.0	0.0	24.4	6.2	0.0	31.7	11.8	5.9	33.3	13.2	6.5
30000	20.7	0.0	0.0	26.0	6.3	0.0	33.5	12.4	5.9	35.0	13.7	6.8

UFLR output for CAL8

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.9	3.1	1.4	10.6	5.0	2.2	13.0	8.4	4.0	13.4	9.0	4.3
1000	9.3	3.2	1.3	11.2	5.0	2.3	13.8	8.7	4.2	14.2	9.4	4.5
1500	10.3	3.3	1.2	12.4	5.3	2.3	15.5	9.4	4.5	16.0	10.2	4.9
2000	11.4	3.3	1.1	14.0	5.5	2.4	17.5	10.1	4.8	18.1	11.1	5.3
2500	12.3	3.4	1.1	15.2	5.6	2.1	19.3	10.7	5.0	20.0	11.7	5.6
3000	13.0	3.4	1.2	16.2	5.7	1.9	20.7	11.1	5.1	21.5	12.2	5.8
3500	13.5	3.3	1.3	16.9	5.7	1.9	21.7	11.3	5.0	22.6	12.6	5.8
4000	13.8	3.1	1.4	17.3	5.7	1.9	22.3	11.4	5.1	23.2	12.7	5.7
5000	14.5	3.1	1.4	18.3	5.9	2.1	23.8	11.7	5.1	24.8	13.0	6.0
7500	16.0	3.2	1.5	20.4	5.4	2.6	26.9	12.2	4.2	28.1	13.8	5.0
10000	17.2	3.5	0.0	22.1	5.3	2.5	29.5	12.6	4.5	30.9	14.1	5.0
15000	19.3	3.6	0.0	25.1	5.8	2.6	34.0	12.3	5.5	35.7	14.5	5.9
20000	21.0	3.7	0.0	27.2	6.3	0.0	37.1	12.1	5.8	39.1	14.0	6.9
25000	23.1	0.0	0.0	29.2	6.3	0.0	40.8	12.4	6.0	42.8	14.1	6.7
30000	24.8	0.0	0.0	31.6	6.4	0.0	43.8	12.9	6.1	46.2	14.4	7.1

APPENDIX 6

UFLR PREDICTED PERFORMANCES FOR DITHERED ATMOSPHERIC PROFILES

file1A: (ten outputs)

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.5	2.7	1.2	6.4	3.8	1.8	7.4	5.3	2.4	7.6	5.5	2.5
1000	5.7	2.7	1.2	6.5	3.9	1.9	7.6	5.4	2.5	7.8	5.6	2.5
1500	6.6	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
2000	7.8	3.0	1.0	9.2	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
2500	8.8	3.1	1.1	10.5	4.9	1.9	12.8	8.3	4.0	13.2	8.9	4.3
3000	9.6	3.1	1.2	11.5	5.1	1.8	14.1	9.0	4.2	14.6	9.6	4.5
3500	10.2	3.0	1.3	12.4	5.2	1.8	15.3	9.4	4.4	15.8	10.2	4.8
4000	10.7	3.0	1.4	13.1	5.3	1.8	16.3	9.7	4.7	16.9	10.6	5.0
5000	11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
7500	13.4	3.1	1.4	16.8	5.1	2.5	21.6	11.1	4.0	22.4	12.4	4.6
10000	15.2	3.5	0.0	19.0	5.2	2.5	24.9	11.9	4.4	26.0	13.2	4.8
15000	17.7	3.6	0.0	23.1	5.8	2.6	30.7	11.9	5.5	32.1	13.8	5.8
20000	20.3	3.7	0.0	25.9	6.2	0.0	35.1	11.9	5.7	36.9	13.7	6.8
25000	22.4	0.0	0.0	28.2	6.3	0.0	38.9	12.3	6.0	40.9	13.9	6.7
30000	24.1	0.0	0.0	30.7	6.4	0.0	42.0	12.8	6.0	44.2	14.3	7.0

1A2

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	4.6	2.5	1.2	5.3	3.4	1.6	6.0	4.4	2.0	6.1	4.5	2.0
1000	4.9	2.5	1.2	5.6	3.5	1.7	6.4	4.6	2.1	6.5	4.7	2.1
1500	5.3	2.6	1.0	6.1	3.7	1.8	7.0	5.0	2.3	7.1	5.2	2.3
2000	5.8	2.7	1.0	6.7	4.0	1.7	7.8	5.6	2.6	8.0	5.8	2.6
2500	6.4	2.8	1.0	7.5	4.2	1.6	8.8	6.2	2.9	9.0	6.4	3.0
3000	7.0	2.8	1.2	8.2	4.4	1.6	9.8	6.8	3.2	10.0	7.1	3.3
3500	7.5	2.8	1.3	8.9	4.6	1.7	10.7	7.3	3.4	11.0	7.7	3.6
4000	8.0	2.8	1.4	9.4	4.7	1.7	11.4	7.6	3.5	11.7	8.1	3.8
5000	8.7	2.8	1.3	10.4	4.7	2.0	12.7	8.2	3.5	13.1	8.8	4.0
7500	10.4	3.0	1.4	12.6	4.7	2.3	15.6	9.4	3.6	16.2	10.2	4.0
10000	11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
15000	14.3	3.5	0.0	17.2	5.6	2.5	22.1	10.4	5.3	23.0	11.8	5.5
20000	16.2	3.6	0.0	19.8	5.9	0.0	25.1	10.8	5.4	26.2	12.2	6.1
25000	17.6	0.0	0.0	21.8	6.1	0.0	27.5	11.3	5.7	28.6	12.6	6.3
30000	18.6	0.0	0.0	23.3	6.1	0.0	29.8	12.0	5.7	31.0	13.2	6.5

1A3

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.8	2.7	1.2	6.6	3.9	1.9	7.7	5.5	2.5	7.9	5.7	2.6
1000	5.9	2.7	1.2	6.8	4.0	1.9	7.9	5.6	2.6	8.1	5.8	2.6
1500	6.8	2.9	1.1	8.0	4.4	2.0	9.4	6.6	3.1	9.7	6.9	3.2
2000	8.0	3.0	1.0	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.8
2500	8.8	3.1	1.1	10.6	5.0	1.9	12.9	8.4	4.0	13.3	9.0	4.3
3000	9.4	3.1	1.2	11.3	5.0	1.8	13.9	8.8	4.1	14.3	9.5	4.4
3500	9.8	3.0	1.3	11.9	5.1	1.8	14.6	9.1	4.3	15.1	9.8	4.6
4000	10.3	2.9	1.4	12.5	5.2	1.8	15.5	9.4	4.5	16.0	10.2	4.8
5000	11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
7500	13.3	3.1	1.4	16.6	5.1	2.5	21.3	11.0	4.0	22.2	12.3	4.6
10000	15.1	3.5	0.0	19.0	5.2	2.5	24.8	11.9	4.3	25.9	13.1	4.8
15000	17.8	3.6	0.0	23.3	5.8	2.6	31.1	11.9	5.5	32.6	13.9	5.8
20000	20.6	3.7	0.0	26.6	6.2	0.0	36.2	12.0	5.7	38.1	13.8	6.8
25000	22.9	0.0	0.0	29.0	6.3	0.0	40.6	12.3	6.0	42.6	14.0	6.7
30000	24.8	0.0	0.0	31.7	6.4	0.0	44.2	12.9	6.0	46.6	14.4	7.0

1A4

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	6.1	2.8	1.2	7.0	4.1	1.9	8.3	5.8	2.7	8.4	6.1	2.7
1000	5.9	2.7	1.2	6.9	4.0	1.9	8.0	5.7	2.6	8.2	5.9	2.7
1500	6.2	2.8	1.0	7.1	4.1	1.9	8.4	5.9	2.7	8.6	6.2	2.8
2000	6.8	2.9	1.0	8.0	4.4	1.9	9.5	6.6	3.1	9.7	6.9	3.2
2500	7.6	3.0	1.1	8.9	4.6	1.7	10.7	7.3	3.4	11.0	7.7	3.6
3000	8.3	3.0	1.2	9.9	4.8	1.7	12.0	7.9	3.7	12.3	8.4	3.9
3500	9.0	2.9	1.3	10.8	4.9	1.7	13.1	8.5	4.1	13.6	9.1	4.3
4000	9.6	2.9	1.4	11.5	5.1	1.8	14.2	8.9	4.2	14.7	9.6	4.6
5000	10.6	2.9	1.4	13.0	5.2	2.0	16.2	9.7	4.1	16.7	10.5	4.8
7500	12.6	3.1	1.4	15.6	5.0	2.4	20.0	10.7	3.9	20.7	11.8	4.4
10000	14.4	3.5	0.0	18.0	5.1	2.5	23.5	11.7	4.3	24.5	12.8	4.7
15000	17.3	3.6	0.0	22.6	5.8	2.6	30.0	11.7	5.4	31.4	13.6	5.8
20000	20.2	3.6	0.0	25.9	6.2	0.0	35.3	11.9	5.7	37.2	13.7	6.7
25000	22.7	0.0	0.0	28.6	6.3	0.0	40.0	12.3	6.0	42.1	13.9	6.7
30000	24.7	0.0	0.0	31.5	6.4	0.0	43.9	12.8	6.0	46.4	14.4	7.0

1A5

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.8	2.7	1.2	6.7	4.0	1.9	7.8	5.6	2.6	8.0	5.3	2.6
1000	6.0	2.8	1.2	6.9	4.0	1.9	8.1	5.8	2.7	8.3	6.0	2.7
1500	6.8	2.9	1.1	7.9	4.3	2.0	9.4	6.5	3.1	9.6	6.3	3.2
2000	7.8	3.0	1.0	9.3	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
2500	8.7	3.1	1.1	10.4	4.9	1.9	12.7	8.3	3.9	13.0	8.3	4.2
3000	9.4	3.1	1.2	11.3	5.0	1.8	13.8	8.8	4.1	14.3	9.5	4.5
3500	9.9	3.0	1.3	12.0	5.1	1.8	14.8	9.2	4.3	15.3	9.9	4.6
4000	10.3	2.9	1.4	12.5	5.2	1.8	15.6	9.5	4.5	16.1	10.2	4.9
5000	11.1	2.9	1.4	13.7	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
7500	12.7	3.1	1.4	15.7	5.0	2.4	20.1	10.7	3.9	20.9	11.9	4.5
10000	14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.8	4.7
15000	17.0	3.6	0.0	21.9	5.7	2.6	29.0	11.6	5.4	30.4	13.5	5.8
20000	19.6	3.6	0.0	24.7	6.2	0.0	33.5	11.7	5.7	35.0	13.5	6.7
25000	21.7	0.0	0.0	27.2	6.3	0.0	37.1	12.1	5.9	39.0	13.7	6.6
30000	23.3	0.0	0.0	29.7	6.4	0.0	40.0	12.7	6.0	42.2	14.2	7.0

1A6

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.2	2.6	1.2	6.0	3.7	1.8	6.9	5.0	2.3	7.1	5.1	2.3
1000	5.4	2.6	1.2	6.2	3.8	1.8	7.2	5.2	2.4	7.3	5.3	2.4
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	3.0
2000	7.5	3.0	1.0	8.9	4.6	2.1	10.6	7.3	3.5	10.9	7.6	3.6
2500	8.5	3.1	1.1	10.1	4.9	1.8	12.3	8.1	3.8	12.6	8.6	4.1
3000	9.2	3.1	1.2	11.1	5.0	1.8	13.5	8.7	4.1	14.0	9.3	4.4
3500	9.7	3.0	1.3	11.7	5.1	1.8	14.5	9.0	4.3	14.9	9.8	4.6
4000	10.1	2.9	1.4	12.2	5.2	1.8	15.1	9.3	4.4	15.6	10.0	4.8
5000	10.6	2.9	1.4	12.9	5.2	2.0	16.1	9.7	4.1	16.7	10.5	4.8
7500	12.5	3.1	1.4	15.4	5.0	2.4	19.6	10.6	3.9	20.4	11.7	4.4
10000	14.2	3.5	0.0	17.7	5.1	2.5	22.9	11.6	4.3	23.9	12.7	4.7
15000	16.8	3.6	0.0	21.6	5.7	2.6	28.4	11.6	5.4	29.7	13.4	5.7
20000	19.4	3.6	0.0	24.2	6.2	0.0	32.7	11.7	5.6	34.2	13.4	6.6
25000	21.3	0.0	0.0	26.7	6.3	0.0	36.1	12.1	5.9	37.9	13.6	6.6
30000	22.8	0.0	0.0	29.0	6.4	0.0	38.7	12.6	6.0	40.8	14.1	7.0

1A7

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.3	2.6	1.2	6.1	3.7	1.8	7.1	5.1	2.3	7.2	5.2	2.3
1000	5.7	2.7	1.2	6.6	3.9	1.9	7.6	5.5	2.5	7.8	5.7	2.5
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
2000	7.2	2.9	1.0	8.4	4.5	2.0	10.0	6.9	3.3	10.3	7.3	3.4
2500	7.9	3.0	1.1	9.4	4.7	1.8	11.3	7.6	3.6	11.6	8.0	3.8
3000	8.6	3.0	1.2	10.3	4.8	1.7	12.5	8.2	3.8	12.8	8.7	4.1
3500	9.2	2.9	1.3	11.0	5.0	1.7	13.5	8.6	4.1	13.9	9.2	4.4
4000	9.7	2.9	1.4	11.7	5.1	1.8	14.4	9.0	4.2	14.9	9.7	4.7
5000	10.5	2.9	1.4	12.9	5.2	2.0	16.0	9.6	4.1	16.6	10.4	4.8
7500	12.4	3.1	1.4	15.4	5.0	2.4	19.6	10.6	3.9	20.3	11.7	4.4
10000	14.1	3.5	0.0	17.6	5.1	2.5	22.7	11.5	4.3	23.7	12.7	4.7
15000	16.7	3.6	0.0	21.5	5.7	2.6	28.3	11.5	5.4	29.6	13.3	5.7
20000	19.4	3.6	0.0	24.3	6.2	0.0	32.9	11.7	5.6	34.4	13.4	6.6
25000	21.5	0.0	0.0	27.0	6.3	0.0	36.7	12.1	5.9	38.5	13.7	6.6
30000	23.1	0.0	0.0	29.4	6.4	0.0	39.6	12.7	6.0	41.8	14.1	7.0

1A8

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	4.4	2.4	1.1	4.9	3.2	1.5	5.6	4.1	1.8	5.7	4.2	1.8
1000	4.6	2.5	1.1	5.2	3.4	1.6	5.9	4.3	1.9	6.0	4.4	1.9
1500	5.0	2.6	1.0	5.7	3.6	1.7	6.6	4.7	2.1	6.7	4.9	2.2
2000	5.7	2.7	1.0	6.6	3.9	1.7	7.6	5.5	2.5	7.8	5.6	2.6
2500	6.3	2.8	1.0	7.3	4.2	1.6	8.6	6.1	2.9	8.8	6.3	2.9
3000	6.8	2.8	1.2	8.0	4.3	1.6	9.5	6.6	3.1	9.8	6.9	3.2
3500	7.3	2.7	1.3	8.6	4.5	1.6	10.3	7.0	3.3	10.5	7.4	3.5
4000	7.7	2.7	1.3	9.1	4.7	1.7	10.9	7.4	3.4	11.2	7.8	3.7
5000	8.5	2.8	1.3	10.1	4.7	1.9	12.2	8.0	3.4	12.6	8.6	3.9
7500	10.3	3.0	1.4	12.5	4.7	2.3	15.4	9.4	3.6	16.0	10.1	4.0
10000	11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
15000	14.4	3.5	0.0	17.3	5.6	2.5	22.4	10.5	5.3	23.4	11.9	5.5
20000	16.4	3.6	0.0	20.1	5.9	0.0	25.7	10.9	5.4	26.8	12.3	6.1
25000	18.0	0.0	0.0	22.3	6.1	0.0	28.3	11.4	5.7	29.5	12.7	6.3
30000	19.1	0.0	0.0	24.0	6.2	0.0	30.8	12.1	5.8	32.0	13.3	6.6

1A9

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.4	2.7	1.2	6.2	3.8	1.8	7.2	5.2	2.4	7.3	5.3	2.4
1000	5.6	2.7	1.2	6.5	3.9	1.9	7.5	5.4	2.5	7.7	5.6	2.5
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	2.9
2000	7.3	2.9	1.0	8.6	4.5	2.0	10.3	7.1	3.4	10.6	7.4	3.5
2500	8.1	3.1	1.1	9.7	4.8	1.8	11.7	7.8	3.7	12.0	8.3	3.9
3000	8.8	3.1	1.2	10.5	4.9	1.7	12.9	8.4	3.9	13.2	8.9	4.2
3500	9.4	3.0	1.3	11.2	5.0	1.8	13.8	8.8	4.2	14.2	9.4	4.5
4000	9.8	2.9	1.4	11.8	5.1	1.8	14.6	9.1	4.3	15.0	9.8	4.7
5000	10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.0	16.4	10.4	4.7
7500	12.4	3.1	1.4	15.3	5.0	2.4	19.4	10.6	3.9	20.2	11.7	4.4
10000	13.9	3.5	0.0	17.3	5.1	2.5	22.3	11.4	4.3	23.3	12.6	4.6
15000	16.5	3.6	0.0	21.1	5.7	2.6	27.6	11.4	5.4	28.9	13.2	5.7
20000	19.0	3.6	0.0	23.6	6.1	0.0	31.9	11.6	5.6	33.4	13.3	6.6
25000	21.0	0.0	0.0	26.3	6.2	0.0	35.3	12.0	5.9	37.0	13.5	6.6
30000	22.5	0.0	0.0	28.5	6.3	0.0	37.9	12.6	5.9	39.9	14.0	6.9

1A10

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.3	2.6	1.2	6.0	3.7	1.8	7.0	5.0	2.3	7.1	5.2	2.3
1000	5.5	2.7	1.2	6.4	3.8	1.8	7.4	5.3	2.4	7.5	5.5	2.4
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	9.0	6.4	2.9
2000	7.4	2.9	1.0	8.7	4.6	2.0	10.4	7.2	3.4	10.7	7.5	3.5
2500	8.3	3.1	1.1	9.9	4.8	1.8	12.0	8.0	3.7	12.3	8.5	4.0
3000	9.1	3.1	1.2	10.9	5.0	1.8	13.4	8.6	4.0	13.8	9.2	4.3
3500	9.8	3.0	1.3	11.8	5.1	1.8	14.5	9.1	4.3	15.0	9.8	4.6
4000	10.2	2.9	1.4	12.4	5.2	1.8	15.4	9.4	4.5	15.9	10.2	4.8
5000	11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
7500	12.8	3.1	1.4	16.0	5.1	2.4	20.4	10.8	3.9	21.2	12.0	4.5
10000	14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.7
15000	17.4	3.6	0.0	22.7	5.8	2.6	30.2	11.8	5.4	31.6	13.7	5.8
20000	20.2	3.6	0.0	25.9	6.2	0.0	35.2	11.9	5.7	36.9	13.7	6.7
25000	22.5	0.0	0.0	28.4	6.3	0.0	39.4	12.3	6.0	41.5	13.9	6.7
30000	24.4	0.0	0.0	31.1	6.4	0.0	43.0	12.8	6.0	45.3	14.3	7.0

file2A: (ten outputs)

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.3	3.0	1.3	8.6	4.5	2.1	10.2	7.0	3.3	10.5	7.4	3.5
1000	7.7	3.0	1.3	9.1	4.7	2.2	10.9	7.4	3.6	11.3	7.8	3.7
1500	8.7	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
2000	9.9	3.2	1.1	11.9	5.2	2.4	14.7	9.2	4.5	15.2	9.9	4.8
2500	10.8	3.3	1.1	13.2	5.4	2.0	16.4	9.8	4.7	16.9	10.7	5.2
3000	11.5	3.4	1.2	14.1	5.5	1.9	17.7	10.3	4.8	18.3	11.2	5.5
3500	12.1	3.2	1.3	14.9	5.5	1.9	18.8	10.6	4.8	19.5	11.6	5.4
4000	12.5	3.1	1.4	15.5	5.6	1.9	19.6	10.8	5.0	20.3	11.9	5.5
5000	13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.6	12.3	5.9
7500	14.4	3.2	1.5	18.1	5.3	2.5	23.3	11.6	4.1	24.3	13.0	4.8
10000	15.5	3.5	0.0	19.5	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
15000	17.3	3.6	0.0	22.3	5.8	2.6	29.3	11.8	5.5	30.7	13.7	5.8
20000	19.5	3.6	0.0	24.4	6.2	0.0	32.6	11.8	5.7	34.1	13.5	6.7
25000	21.1	0.0	0.0	26.3	6.3	0.0	35.1	12.1	5.9	36.8	13.6	6.6
30000	22.2	0.0	0.0	28.1	6.3	0.0	36.8	12.6	6.0	38.7	14.0	6.9

2A2

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.4	3.0	1.3	8.7	4.6	2.1	10.4	7.1	3.4	10.7	7.5	3.6
1000	8.2	3.1	1.3	9.7	4.8	2.2	11.7	7.8	3.8	12.1	8.3	4.0
1500	8.7	3.1	1.1	10.4	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
2000	9.1	3.1	1.0	10.9	5.0	2.3	13.4	8.6	4.2	13.8	9.2	4.5
2500	9.5	3.2	1.1	11.5	5.1	1.9	14.2	8.9	4.3	14.7	9.6	4.7
3000	10.2	3.2	1.2	12.4	5.3	1.8	15.4	9.4	4.4	15.9	10.2	4.9
3500	10.7	3.1	1.3	13.1	5.3	1.8	16.4	9.8	4.5	16.9	10.6	5.0
4000	11.1	3.0	1.4	13.6	5.4	1.9	17.0	10.0	4.8	17.6	10.9	5.1
5000	11.7	3.0	1.4	14.4	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
7500	13.3	3.1	1.5	16.5	5.1	2.5	21.2	11.1	4.0	22.1	12.3	4.6
10000	14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.7	4.3	24.3	12.9	4.7
15000	16.6	3.6	0.0	21.0	5.7	2.6	27.4	11.5	5.4	28.7	13.3	5.7
20000	18.7	3.6	0.0	23.0	6.1	0.0	30.8	11.5	5.6	32.2	13.2	6.6
25000	20.3	0.0	0.0	25.2	6.2	0.0	33.2	11.9	5.9	34.8	13.4	6.6
30000	21.4	0.0	0.0	27.0	6.3	0.0	35.0	12.5	5.9	36.8	13.8	6.9

2A3

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.8	3.0	1.3	9.3	4.7	2.2	11.2	7.5	3.6	11.5	8.0	3.8
1000	8.7	3.1	1.3	10.4	4.9	2.3	12.7	8.3	4.0	13.1	8.8	4.3
1500	9.8	3.2	1.2	11.9	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
2000	10.9	3.3	1.1	13.3	5.4	2.4	16.6	9.9	4.7	17.2	10.7	5.2
2500	11.7	3.3	1.1	14.4	5.5	2.1	18.1	10.4	4.9	18.7	11.4	5.5
3000	12.1	3.4	1.2	14.9	5.6	1.9	18.8	10.6	4.9	19.5	11.6	5.6
3500	12.3	3.2	1.3	15.2	5.6	1.9	19.3	10.7	4.8	20.0	11.8	5.5
4000	12.6	3.1	1.4	15.6	5.6	1.9	19.9	10.8	5.0	20.7	12.0	5.5
5000	13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.8	21.7	12.2	5.9
7500	14.8	3.2	1.5	18.7	5.3	2.5	24.3	11.8	4.2	25.3	13.2	4.9
10000	16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.2	4.4	27.7	13.6	4.9
15000	18.0	3.6	0.0	23.3	5.8	2.6	30.9	12.0	5.5	32.4	14.0	5.8
20000	20.2	3.7	0.0	25.7	6.2	0.0	34.6	11.9	5.7	36.2	13.7	6.8
25000	22.0	0.0	0.0	27.6	6.3	0.0	37.6	12.2	6.0	39.4	13.8	6.7
30000	23.4	0.0	0.0	29.7	6.4	0.0	39.8	12.7	6.0	41.9	14.2	7.0

2A4

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.5	3.1	1.4	10.1	4.8	2.2	12.3	8.0	3.8	12.6	8.6	4.1
1000	9.0	3.2	1.3	10.7	5.0	2.3	13.2	8.5	4.1	13.6	9.1	4.4
1500	9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.2	14.6	9.5	4.6
2000	10.0	3.2	1.1	12.1	5.2	2.3	15.0	9.2	4.4	15.6	10.0	4.8
2500	10.7	3.3	1.1	13.0	5.3	2.0	16.3	9.7	4.6	16.9	10.6	5.0
3000	11.5	3.3	1.2	14.1	5.5	1.9	17.8	10.2	4.7	18.5	11.2	5.3
3500	12.2	3.2	1.3	15.1	5.5	1.9	19.2	10.7	4.8	20.0	11.7	5.4
4000	12.8	3.1	1.4	15.9	5.6	1.9	20.3	10.9	5.0	21.1	12.1	5.5
5000	13.8	3.0	1.4	17.3	5.8	2.1	22.4	11.5	4.9	23.3	12.7	5.9
7500	15.5	3.2	1.5	19.8	5.3	2.6	25.9	12.0	4.2	27.1	13.6	4.9
10000	16.9	3.5	0.0	21.6	5.3	2.5	28.8	12.5	4.5	30.1	14.0	4.9
15000	19.6	3.6	0.0	25.6	5.8	2.6	34.9	12.4	5.5	36.7	14.6	5.9
20000	21.9	3.7	0.0	29.0	6.3	0.0	40.0	12.3	5.8	42.2	14.3	7.0
25000	24.3	0.0	0.0	31.5	6.4	0.0	44.1	12.5	6.1	46.7	14.3	6.8
30000	26.2	0.0	0.0	33.5	6.5	0.0	47.8	13.0	6.1	50.4	14.7	7.1

2A5

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.1	3.1	1.4	9.6	4.8	2.2	11.6	7.8	3.8	12.0	8.2	4.0
1000	9.1	3.2	1.3	10.9	5.0	2.3	13.3	8.6	4.2	13.7	9.2	4.5
1500	10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
2000	11.0	3.3	1.1	13.5	5.4	2.4	16.8	9.9	4.8	17.4	10.8	5.2
2500	11.8	3.3	1.1	14.5	5.6	2.1	18.2	10.4	5.0	18.9	11.4	5.5
3000	12.3	3.4	1.2	15.2	5.7	1.9	19.2	10.8	5.0	20.0	11.8	5.7
3500	12.7	3.2	1.3	15.7	5.6	1.9	19.9	10.9	4.9	20.7	12.0	5.6
4000	12.9	3.1	1.4	16.0	5.6	1.9	20.4	11.0	5.0	21.2	12.2	5.6
5000	13.3	3.0	1.4	16.5	5.8	2.1	21.2	11.2	4.9	22.0	12.4	5.9
7500	14.1	3.2	1.5	17.7	5.2	2.5	22.9	11.5	4.1	23.9	12.8	4.8
10000	15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15000	17.1	3.6	0.0	22.0	5.8	2.6	28.9	11.7	5.5	30.2	13.6	5.8
20000	19.3	3.6	0.0	24.0	6.2	0.0	32.2	11.7	5.7	33.6	13.4	6.7
25000	20.9	0.0	0.0	26.0	6.3	0.0	34.6	12.0	5.9	36.3	13.6	6.6
30000	22.0	0.0	0.0	27.8	6.3	0.0	36.3	12.5	5.9	38.2	13.9	6.9

2A6

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.3	3.0	1.3	8.5	4.5	2.1	10.2	7.0	3.3	10.5	7.4	3.5
1000	7.9	3.1	1.3	9.3	4.7	2.2	11.2	7.5	3.7	11.6	8.0	3.8
1500	9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
2000	10.2	3.2	1.1	12.3	5.3	2.4	15.2	9.4	4.6	15.7	10.1	4.9
2500	11.2	3.3	1.1	13.6	5.5	2.1	17.0	10.0	4.8	17.6	11.0	5.3
3000	11.9	3.4	1.2	14.6	5.6	1.9	18.3	10.5	4.9	19.0	11.5	5.6
3500	12.2	3.2	1.3	15.1	5.6	1.9	19.1	10.7	4.9	19.8	11.7	5.5
4000	12.3	3.1	1.4	15.2	5.5	1.9	19.2	10.7	5.0	20.0	11.8	5.4
5000	12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.4	11.9	5.7
7500	13.9	3.2	1.5	17.4	5.2	2.5	22.4	11.4	4.1	23.3	12.7	4.7
10000	15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
15000	17.2	3.6	0.0	22.1	5.8	2.6	29.0	11.7	5.5	30.3	13.6	5.8
20000	19.4	3.6	0.0	24.1	6.2	0.0	32.3	11.7	5.7	33.8	13.4	6.7
25000	20.9	0.0	0.0	26.1	6.3	0.0	34.8	12.0	5.9	36.4	13.6	6.6
30000	22.1	0.0	0.0	27.9	6.3	0.0	36.5	12.6	5.9	38.4	14.0	6.9

2A7

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.0	2.9	1.3	8.2	4.4	2.1	9.7	6.7	3.2	10.0	7.1	3.3
1000	7.9	3.1	1.3	9.4	4.7	2.2	11.3	7.6	3.7	11.6	8.0	3.9
1500	8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.7	4.3
2000	9.2	3.2	1.1	11.0	5.1	2.3	13.5	8.7	4.2	14.0	9.3	4.6
2500	9.8	3.2	1.1	11.8	5.2	2.0	14.5	9.1	4.4	15.0	9.8	4.8
3000	10.4	3.2	1.2	12.6	5.3	1.8	15.6	9.5	4.5	16.1	10.3	5.0
3500	10.8	3.1	1.3	13.2	5.3	1.8	16.4	9.8	4.6	17.0	10.7	5.0
4000	11.2	3.0	1.4	13.6	5.4	1.9	17.1	10.0	4.8	17.7	10.9	5.2
5000	11.7	3.0	1.4	14.4	5.5	2.0	18.1	10.4	4.5	18.8	11.4	5.4
7500	13.1	3.1	1.5	16.1	5.1	2.5	20.6	10.9	4.0	21.4	12.1	4.6
10000	14.0	3.5	0.0	17.4	5.1	2.5	22.3	11.5	4.3	23.2	12.7	4.7
15000	15.9	3.6	0.0	19.9	5.7	2.6	25.8	11.2	5.4	26.8	12.9	5.7
20000	17.8	3.6	0.0	21.9	6.1	0.0	28.6	11.3	5.5	29.9	12.9	6.4
25000	19.2	0.0	0.0	23.8	6.2	0.0	30.6	11.7	5.8	32.1	13.1	6.5
30000	20.1	0.0	0.0	25.3	6.2	0.0	32.4	12.3	5.8	33.7	13.6	6.7

2A8

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	6.7	2.9	1.3	7.8	4.3	2.1	9.3	6.5	3.1	9.5	6.8	3.2
1000	7.4	3.0	1.3	8.7	4.6	2.1	10.4	7.1	3.4	10.6	7.5	3.5
1500	8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
2000	8.6	3.1	1.0	10.3	4.9	2.3	12.6	8.2	4.0	12.9	8.8	4.2
2500	9.2	3.2	1.1	11.1	5.1	1.9	13.6	8.7	4.2	14.0	9.3	4.5
3000	9.7	3.2	1.2	11.7	5.1	1.8	14.5	9.1	4.2	15.0	9.8	4.7
3500	10.1	3.0	1.3	12.3	5.2	1.8	15.2	9.3	4.4	15.8	10.1	4.8
4000	10.4	3.0	1.4	12.7	5.3	1.8	15.8	9.5	4.6	16.3	10.3	4.9
5000	11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.3	17.7	10.9	5.1
7500	12.9	3.1	1.4	16.0	5.1	2.5	20.4	10.9	4.0	21.2	12.0	4.6
10000	14.2	3.5	0.0	17.6	5.1	2.5	22.7	11.6	4.3	23.7	12.7	4.7
15000	16.3	3.6	0.0	20.6	5.7	2.6	26.8	11.4	5.4	28.0	13.1	5.7
20000	18.4	3.6	0.0	22.7	6.1	0.0	30.2	11.5	5.6	31.5	13.1	6.5
25000	20.0	0.0	0.0	24.9	6.2	0.0	32.6	11.9	5.9	34.2	13.3	6.5
30000	21.1	0.0	0.0	26.6	6.3	0.0	34.3	12.4	5.9	36.1	13.8	6.8

2A9

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.8	3.0	1.4	9.2	4.7	2.2	11.1	7.5	3.6	11.4	7.9	3.8
1000	8.7	3.2	1.3	10.4	4.9	2.3	12.7	8.3	4.0	13.1	8.8	4.3
1500	9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
2000	10.5	3.3	1.1	12.7	5.3	2.4	15.8	9.6	4.6	16.3	10.4	5.0
2500	11.2	3.3	1.1	13.7	5.5	2.1	17.1	10.0	4.8	17.7	11.0	5.3
3000	11.8	3.4	1.2	14.5	5.6	1.9	18.2	10.4	4.8	18.9	11.4	5.5
3500	12.2	3.2	1.3	15.0	5.5	1.9	19.0	10.7	4.8	19.7	11.7	5.4
4000	12.4	3.1	1.4	15.3	5.6	1.9	19.4	10.7	5.0	20.2	11.8	5.4
5000	12.7	3.0	1.4	15.7	5.7	2.1	20.1	10.9	4.7	20.8	12.0	5.8
7500	14.2	3.2	1.5	17.8	5.2	2.5	22.9	11.5	4.1	23.9	12.9	4.8
10000	15.2	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
15000	17.0	3.6	0.0	21.8	5.8	2.6	28.6	11.7	5.5	30.0	13.5	5.8
20000	19.2	3.6	0.0	23.8	6.2	0.0	31.9	11.7	5.7	33.4	13.4	6.6
25000	20.8	0.0	0.0	25.9	6.3	0.0	34.3	12.0	5.9	36.0	13.5	6.6
30000	21.9	0.0	0.0	27.6	6.3	0.0	36.0	12.5	5.9	37.9	13.9	6.9

2A10

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.2	3.0	1.3	8.4	4.5	2.1	10.0	6.9	3.3	10.3	7.3	3.4
1000	8.1	3.1	1.3	9.5	4.8	2.2	11.5	7.7	3.7	11.8	8.2	3.9
1500	9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
2000	10.0	3.2	1.1	12.0	5.2	2.4	14.9	9.2	4.5	15.4	10.0	4.8
2500	10.8	3.3	1.1	13.2	5.4	2.0	16.4	9.8	4.7	17.0	10.7	5.2
3000	11.6	3.3	1.2	14.2	5.5	1.9	17.8	10.3	4.8	18.5	11.3	5.5
3500	12.2	3.2	1.3	15.0	5.5	1.9	18.9	10.7	4.8	19.6	11.7	5.4
4000	12.4	3.1	1.4	15.4	5.6	1.9	19.5	10.7	5.0	20.2	11.9	5.4
5000	12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
7500	14.1	3.2	1.5	17.8	5.2	2.5	23.0	11.5	4.1	23.9	12.8	4.8
10000	15.4	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.5	13.4	4.8
15000	17.4	3.6	0.0	22.5	5.8	2.6	29.7	11.8	5.5	31.1	13.7	5.8
20000	19.7	3.6	0.0	24.8	6.2	0.0	33.3	11.8	5.7	34.8	13.6	6.7
25000	21.4	0.0	0.0	26.8	6.3	0.0	36.1	12.1	6.0	37.9	13.7	6.6
30000	22.7	0.0	0.0	28.8	6.4	0.0	38.1	12.6	6.0	40.1	14.1	7.0

APPENDIX 7

COMPUTER PROGRAM UFLRPLT

```
C     PROGRAM UFLRPLT                                                    UFL00010
      IMPLICIT INTEGER*2 (I-N)                                           UFL00020
      DIMENSION X(150),R1(150),R2(150),R3(150),RA(12,150)                UFL00030
      CHARACTER*80 TITLE$,BLANK$,BUF$,FILN$*20                           UFL00040
      BLANK$='                                                          'UFL00050
    1 WRITE(*,*)'IMPUT FILE NAME AND TYPE'                               UFL00060
      WRITE(*,*)'A NULL IMPUT EXITS THE PROGRAM'                         UFL00070
      READ(*,'(A20)')FILN$                                               UFL00080
      OPEN(2,FILE=FILN$,STATUS='OLD',ERR=3)                              UFL00090
      DO 2 I=1,100                                                       UFL00100
        IF(I .EQ. 100)WRITE(*,*)' OPEN WAS SUCCESSFUL '                  UFL00110
    2 CONTINUE                                                           UFL00120
      I = 1                                                              UFL00130
      READ(2,'(A80)')TITLE$                                              UFL00140
    7 READ(2,'(A80)',END=6)BUF$                                          UFL00150
        IF (BUF$(6:7) .EQ. '00' .AND. I .LE. 150)THEN                    UFL00160
          READ(BUF$,'(F7.0,4(F7.1,2F5.1))')X(I),(RA(J,I),J=1,12)         UFL00170
          I=I+1                                                          UFL00180
        ENDIF                                                            UFL00190
      IF(I .EQ. 150)GO TO 6                                              UFL00200
      GO TO 7                                                            UFL00210
    6 DO 20 I=1,12,3                                                     UFL00220
         DO 15 J=1,150                                                   UFL00230
            R1(J)=RA(I,J)                                                UFL00240
            R2(J)=RA(I+1,J)                                              UFL00250
            R3(J)=RA(I+2,J)                                              UFL00260
   15    CONTINUE                                                        UFL00270
         I1 = (I-1)/3 +1                                                 UFL00280
         CALL PLOTIT(R1,R2,R3,X,I1)                                      UFL00290
   20 CONTINUE                                                           UFL00300
      GO TO 4                                                            UFL00310
    3 CONTINUE                                                           UFL00320
      WRITE(*,'('' CAN NOT FIND '',A20)')FILN$                           UFL00330
      GO TO 1                                                            UFL00340
    4 CALL DONEPL                                                        UFL00350
      STOP                                                               UFL00360
      END                                                                UFL00370
C                                                                        UFL00380
      SUBROUTINE PLOTIT(X1,X2,X3,Y,I1)                                   UFL00390
      IMPLICIT INTEGER*2 (I-N)                                           UFL00400
      DIMENSION X1(150),X2(150),X3(150),Y(15),X11(15),X22(15),X33(15),   UFL00410
     *RA(12,150)                                                         UFL00420
      CHARACTER CH$*17                                                   UFL00430
      CALL COMPRS                                                        UFL00440
      CALL PAGE(11.,8.5)                                                 UFL00450
      CALL AREA2D(7.,5.5)                                                UFL00460
      WRITE(CH$,'(''TARGET NUMBER '', I2,''$'')')I1                      UFL00470
      CALL HEADIN(CH$,100,1.5,1)                                         UFL00480
      CALL YNAME('ELEVATION (FEET)$',100)                                UFL00490
      CALL XNAME('RANGE (NMI)$',100)                                     UFL00500
      CALL YAXANG(0)                                                     UFL00510
      CALL XTICKS(2)                                                     UFL00520
      CALL YTICKS(6)                                                     UFL00530
      CALL GRAF(0.,4.,48.,0.,6000.,30000.)                               UFL00540
      CALL DOT                                                           UFL00550
      CALL GRID(1,1)                                                     UFL00560
      CALL RESET('DOT')                                                  UFL00570
      DO 32 I=1,150,15                                                   UFL00580
        DO 31 J=1,15                                                     UFL00590
           X11(J) = X1(I+J-1)                                            UFL00600
           X22(J) = X2(I+J-1)                                            UFL00610
           X33(J) = X3(I+J-1)                                            UFL00620
   31    CONTINUE                                                        UFL00630
         CALL DOT                                                        UFL00640
         CALL CURVE(X11,Y,15,0)                                          UFL00650
         CALL DASH                                                       UFL00660
         CALL CURVE(X22,Y,15,0)                                          UFL00670
         CALL CURVE(X33,Y,15,0)                                          UFL00680
   32 CONTINUE                                                           UFL00690
      CALL ENDPL(0)                                                      UFL00700
      RETURN                                                             UFL00710
      END                                                                UFL00720
```

APPENDIX 8

SELECTED PERFORMANCE DATA FOR HEIGHT LEVELS TESTED

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: A

SIGMAP = 2.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
6.6	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
5.3	2.6	1.0	6.1	3.7	1.8	7.0	5.0	2.3	7.1	5.2	2.3
6.8	2.9	1.1	8.0	4.4	2.0	9.4	6.6	3.1	9.7	6.9	3.2
6.2	2.8	1.0	7.1	4.1	1.9	8.4	5.9	2.7	8.6	6.2	2.8
6.8	2.9	1.1	7.9	4.3	2.0	9.4	6.5	3.1	9.6	6.8	3.2
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	3.0
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
5.0	2.6	1.0	5.7	3.6	1.7	6.6	4.7	2.1	6.7	4.9	2.2
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	2.9
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	9.0	6.4	2.9
8.7	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
8.7	3.1	1.1	10.4	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
9.8	3.2	1.2	11.9	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.2	14.6	9.5	4.6
10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.7	4.3
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.0	2.8	1.0	6.9	4.0	1.9	8.1	5.8	2.7	8.3	6.0	2.7
7.1	2.9	1.1	8.4	4.5	2.0	10.0	6.9	3.3	10.2	7.2	3.4
6.7	2.9	1.0	7.9	4.3	2.0	9.3	6.5	3.0	9.5	6.8	3.1
6.9	2.9	1.1	8.1	4.4	2.0	9.6	6.7	3.2	9.9	7.0	3.3
6.2	2.8	1.0	7.2	4.1	1.9	8.4	6.0	2.8	8.6	6.2	2.9
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.1
5.5	2.7	1.0	6.3	3.8	1.8	7.3	5.2	2.4	7.4	5.4	2.4
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.1
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.5	6.8	3.1
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.3	9.5	4.7
8.1	3.1	1.1	9.6	4.8	2.1	11.7	7.8	3.7	12.0	8.2	4.0
9.6	3.2	1.2	11.6	5.2	2.2	14.3	9.0	4.4	14.7	9.6	4.7
9.0	3.2	1.1	10.9	5.0	2.2	13.3	8.5	4.1	13.7	9.1	4.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
9.1	3.2	1.2	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
8.3	3.1	1.1	9.9	4.9	2.2	12.0	8.0	3.9	12.4	8.5	4.1
7.6	3.0	1.1	9.0	4.6	2.1	10.8	7.3	3.5	11.1	7.7	3.7
9.1	3.2	1.2	11.0	5.1	2.2	13.4	8.6	4.2	13.8	9.2	4.5
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.0	4.4
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.4	10.4	5.1
11.2	3.4	1.2	13.7	5.5	2.3	17.0	10.0	4.8	17.8	10.9	5.9
11.8	3.4	1.2	14.4	5.6	2.4	18.0	10.4	5.0	18.7	11.4	5.5
11.4	3.4	1.2	13.9	5.5	2.3	17.4	10.1	4.8	18.0	11.0	5.4
13.0	3.5	1.2	16.0	5.7	2.4	20.1	11.0	5.3	20.8	12.2	5.8
10.8	3.3	1.2	13.1	5.4	2.3	16.2	9.7	4.7	16.8	10.6	5.2
11.1	3.4	1.2	13.5	5.5	2.3	16.7	9.9	4.8	17.3	10.8	5.3
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
12.1	3.4	1.2	14.9	5.6	2.4	18.7	10.6	5.1	19.4	11.6	5.6
10.7	3.3	1.2	12.9	5.4	2.3	16.0	9.7	4.7	16.6	10.5	5.2
9.7	3.2	1.2	11.7	5.2	2.2	14.4	9.0	4.4	14.9	9.7	4.8
10.0	3.3	1.2	12.1	5.3	2.3	15.0	9.2	4.5	15.5	10.0	4.9
10.4	3.3	1.2	12.6	5.3	2.3	15.5	9.5	4.6	16.1	10.3	5.1
10.6	3.3	1.2	12.9	5.3	2.3	16.1	9.6	4.6	16.7	10.4	5.1
11.5	3.4	1.2	14.1	5.5	2.4	17.6	10.2	4.9	18.2	11.1	5.5
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.8	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
10.9	3.3	1.2	13.2	5.4	2.3	16.4	9.8	4.7	17.0	10.6	5.2
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
9.0	3.2	1.2	10.8	5.0	2.2	13.2	8.5	4.2	13.6	9.1	4.5
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	13.9	9.3	4.6
9.3	3.2	1.1	11.2	5.1	2.2	13.8	8.8	4.2	14.2	9.4	4.5
10.1	3.3	1.2	12.2	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.8	9.2	4.6
8.2	3.1	1.1	9.8	4.8	2.1	11.8	7.9	3.8	12.2	8.4	4.0
9.7	3.2	1.2	11.7	5.2	2.2	14.4	9.0	4.4	14.9	9.7	4.8
9.1	3.2	1.1	10.9	5.0	2.2	13.2	8.6	4.2	13.7	9.1	4.5
9.3	3.2	1.2	11.1	5.1	2.2	13.6	8.7	4.2	14.0	9.3	4.6
9.6	3.2	1.2	11.5	5.2	2.2	14.1	9.0	4.4	14.6	9.6	4.7
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
10.8	3.3	1.2	13.1	5.4	2.3	16.3	9.7	4.7	16.9	10.6	5.2
10.1	3.2	1.2	12.2	5.2	2.3	15.1	9.3	4.5	15.7	10.0	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
10.0	3.3	1.2	12.1	5.2	2.3	14.9	9.2	4.5	15.4	10.0	4.9
9.0	3.2	1.2	10.8	5.0	2.2	13.1	8.5	4.2	13.5	9.1	4.5
9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.3	14.5	9.5	4.7
8.3	3.1	1.1	9.8	4.8	2.1	11.9	7.9	3.8	12.2	8.4	4.0
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: B

SIGMAP = 2.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
7.2	3.0	1.1	8.4	4.5	2.0	10.1	6.9	3.3	10.3	7.3	3.4
5.1	2.6	1.0	5.8	3.6	1.7	6.7	4.8	2.2	6.8	5.0	2.2
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.4	6.7	3.1
6.0	2.8	1.0	7.0	4.1	1.9	8.2	5.8	2.7	8.4	6.0	2.7
6.6	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.7	2.9	1.1	7.9	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.2
6.7	2.9	1.0	7.9	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.1
4.7	2.5	0.9	5.4	3.5	1.7	6.2	4.5	2.0	6.3	4.6	2.0
6.3	2.8	1.0	7.3	4.1	1.9	8.5	6.0	2.8	8.7	6.3	2.9
6.5	2.9	1.0	7.6	4.2	1.9	8.9	6.3	2.9	9.1	6.6	3.0
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.1	9.3	4.6
8.4	3.1	1.1	10.1	4.9	2.1	12.2	8.1	3.9	12.6	8.6	4.1
9.7	3.2	1.2	11.7	5.2	2.2	14.3	9.0	4.4	14.8	9.7	4.7
9.3	3.2	1.1	11.2	5.1	2.2	13.8	8.8	4.2	14.2	9.4	4.5
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.3	14.3	9.4	4.6
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.0	4.4
7.7	3.0	1.1	9.1	4.7	2.1	10.9	7.4	3.6	11.2	7.8	3.7
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.4	9.5	4.7
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
7.0	2.9	1.1	8.2	4.4	2.0	9.7	6.8	3.2	10.0	7.1	3.3
5.8	2.7	1.0	6.7	3.9	1.8	7.8	5.5	2.6	7.9	5.7	2.6
7.0	2.9	1.1	8.2	4.4	2.0	9.7	6.7	3.2	10.0	7.1	3.3
6.6	2.9	1.0	7.7	4.3	1.9	9.0	6.3	3.0	9.3	6.6	3.0
6.8	2.9	1.1	7.9	4.4	2.0	9.4	6.6	3.1	9.6	6.9	3.2
6.5	2.9	1.0	7.5	4.2	1.9	8.9	6.2	3.0	9.1	6.5	3.0
6.8	2.9	1.1	7.9	4.4	2.0	9.4	6.5	3.1	9.6	6.8	3.2
5.2	2.6	1.0	5.9	3.7	1.8	6.8	4.9	2.2	6.9	5.0	2.3
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.7	2.9	1.1	7.9	4.3	2.0	9.3	6.5	3.1	9.6	6.8	3.2
10.0	3.3	1.2	12.1	5.3	2.3	14.9	9.3	4.5	15.4	10.0	4.9
7.9	3.0	1.1	9.3	4.7	2.1	11.2	7.5	3.6	11.5	8.0	3.8
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.6
8.9	3.1	1.1	10.7	5.0	2.2	13.0	8.4	4.0	13.4	9.0	4.3
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	14.0	9.3	4.5
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
8.7	3.2	1.1	10.4	5.0	2.2	12.6	8.3	4.0	13.0	8.8	4.3
7.3	3.0	1.1	8.6	4.5	2.0	10.2	7.0	3.4	10.5	7.4	3.5
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.0	3.3	1.2	13.3	5.4	2.3	16.6	9.8	4.8	17.2	10.7	5.3
11.7	3.4	1.2	14.2	5.6	2.4	17.8	10.3	5.0	18.4	11.3	5.5
11.1	3.3	1.2	13.6	5.4	2.3	17.0	9.9	4.8	17.6	10.8	5.3
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.4	10.4	5.1
12.9	3.5	1.2	15.9	5.7	2.4	20.0	11.0	5.2	20.8	12.2	5.8
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.3	3.4	1.2	13.7	5.5	2.4	17.1	10.0	4.9	17.7	11.0	5.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
12.1	3.4	1.2	14.8	5.6	2.4	18.5	10.5	5.0	19.2	11.6	5.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.9	10.1	5.0
9.8	3.2	1.2	11.8	5.2	2.3	14.5	9.1	4.4	15.0	9.8	4.8
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.2	5.0
10.4	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.3	10.3	5.0
11.4	3.4	1.2	13.9	5.5	2.4	17.4	10.1	4.9	18.0	11.1	5.4
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.1	10.3	5.0
8.7	3.1	1.1	10.4	4.9	2.2	12.6	8.2	4.0	13.0	8.8	4.3
10.8	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.8	10.5	5.2
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
9.6	3.2	1.2	11.5	5.2	2.2	14.1	9.0	4.4	14.6	9.6	4.7
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.8	8.7	4.2
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
9.2	3.2	1.1	11.0	5.0	2.2	13.5	8.6	4.1	13.9	9.2	4.5
9.8	3.3	1.2	11.9	5.2	2.3	14.6	9.1	4.5	15.1	9.8	4.8
9.6	3.2	1.2	11.5	5.2	2.2	14.1	8.9	4.4	14.6	9.6	4.7
9.7	3.2	1.2	11.6	5.2	2.2	14.3	9.0	4.4	14.7	9.7	4.7
7.9	3.1	1.1	9.4	4.7	2.1	11.3	7.6	3.7	11.6	8.0	3.8
9.6	3.2	1.2	11.5	5.2	2.2	14.1	8.9	4.3	14.6	9.6	4.7
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.9	9.2	4.6
10.2	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.6	15.6	10.1	5.0
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.7	8.7	4.2
10.6	3.3	1.2	12.9	5.4	2.3	16.0	9.6	4.6	16.5	10.4	5.1
9.9	3.2	1.2	12.0	5.2	2.2	14.9	9.2	4.4	15.4	9.9	4.8
9.9	3.3	1.2	12.0	5.2	2.3	14.8	9.2	4.5	15.2	9.9	4.8
9.4	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.2	9.4	4.7
10.0	3.3	1.2	12.0	5.2	2.3	14.8	9.2	4.5	15.3	9.9	4.9
8.0	3.1	1.1	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	4.9

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: C

SIGMAP = 2.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
8.3	3.1	1.1	9.9	4.8	2.1	12.0	7.9	3.8	12.3	8.4	4.0
4.7	2.5	0.9	5.3	3.4	1.6	6.1	4.4	2.0	6.2	4.5	2.0
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
5.8	2.7	1.0	6.7	3.9	1.8	7.8	5.6	2.5	8.0	5.8	2.6
6.1	2.8	1.0	7.1	4.1	1.9	8.3	5.9	2.7	8.5	6.1	2.8
7.5	3.0	1.1	8.8	4.6	2.0	10.5	7.2	3.5	10.8	7.6	3.6
7.4	3.0	1.1	8.7	4.6	2.0	10.3	7.1	3.4	10.6	7.5	3.5
4.2	2.3	0.9	4.8	3.2	1.5	5.4	3.9	1.7	5.5	4.0	1.7
6.0	2.8	1.0	6.9	4.0	1.9	8.1	5.7	2.7	8.3	5.9	2.7
6.6	2.9	1.0	7.7	4.3	1.9	9.1	6.4	3.0	9.3	6.7	3.1
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.1
7.9	3.1	1.1	9.4	4.7	2.1	11.3	7.6	3.7	11.7	8.0	3.8
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.2	9.4	4.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.0	13.6	9.1	4.4
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.5	9.5	4.7
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.8	10.1	5.0
9.5	3.2	1.2	11.4	5.2	2.2	13.9	8.9	4.4	14.4	9.5	4.7
7.0	2.9	1.1	8.2	4.4	2.0	9.7	6.7	3.2	9.9	7.0	3.3
9.1	3.2	1.1	11.0	5.0	2.2	13.4	8.6	4.2	13.9	9.2	4.5
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.8	9.2	4.5
8.0	3.1	1.1	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
5.3	2.6	1.0	6.1	3.7	1.8	7.1	5.1	2.3	7.2	5.2	2.4
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
6.2	2.8	1.0	7.3	4.1	1.9	8.5	6.0	2.8	8.7	6.3	2.9
6.5	2.9	1.0	7.6	4.2	1.9	8.9	6.3	2.9	9.1	6.5	3.0
7.0	2.9	1.1	8.3	4.5	2.0	9.8	6.8	3.3	10.1	7.1	3.4
7.1	3.0	1.1	8.3	4.5	2.0	9.9	6.9	3.3	10.1	7.2	3.4
4.5	2.4	0.9	5.1	3.3	1.6	5.8	4.2	1.9	5.9	4.3	1.9
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.9
6.8	2.9	1.1	7.9	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.2
11.2	3.4	1.2	13.5	5.5	2.4	16.8	10.0	4.8	17.4	10.9	5.4
7.3	3.0	1.1	8.6	4.5	2.0	10.3	7.0	3.4	10.6	7.4	3.5
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.1	13.7	9.1	4.5
8.6	3.1	1.1	10.2	4.9	2.1	12.4	8.1	3.9	12.8	8.7	4.1
8.7	3.1	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
10.3	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	5.0
9.3	3.2	1.2	11.1	5.1	2.2	13.6	8.8	4.3	14.0	9.3	4.6
6.6	2.9	1.0	7.7	4.3	2.0	9.1	6.4	3.0	9.3	6.6	3.1
8.7	3.1	1.1	10.4	4.9	2.2	12.6	8.3	4.0	13.0	8.8	4.3
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
12.2	3.4	1.2	14.9	5.6	2.4	18.8	10.6	5.1	19.5	11.6	5.6
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.0
11.4	3.4	1.2	13.8	5.5	2.4	17.2	10.1	4.9	17.8	11.0	5.4
10.7	3.3	1.2	12.9	5.4	2.3	16.1	9.6	4.7	16.6	10.5	5.1
12.8	3.5	1.2	15.7	5.7	2.4	19.9	10.9	5.2	20.6	12.1	5.8
11.8	3.4	1.2	14.4	5.6	2.4	18.0	10.4	5.0	18.6	11.4	5.5
11.6	3.4	1.2	14.1	5.5	2.4	17.5	10.2	4.9	18.1	11.2	5.5
8.5	3.1	1.1	10.2	4.9	2.2	12.3	8.1	3.9	12.7	8.7	4.2
11.9	3.4	1.2	14.5	5.6	2.4	18.2	10.4	5.0	18.9	11.4	5.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.2	5.0
11.3	3.4	1.2	13.8	5.5	2.4	17.2	10.1	4.9	17.9	11.0	5.4
9.2	3.2	1.2	11.1	5.1	2.2	13.6	8.7	4.2	14.0	9.3	4.5
10.0	3.3	1.2	12.0	5.2	2.3	14.8	9.2	4.5	15.3	9.9	4.9
10.0	3.2	1.2	12.0	5.2	2.2	14.9	9.2	4.4	15.4	9.9	4.8
11.2	3.4	1.2	13.7	5.5	2.3	17.1	10.0	4.8	17.7	10.9	5.4
11.0	3.3	1.2	13.3	5.4	2.3	16.5	9.8	4.8	17.1	10.7	5.3
10.7	3.3	1.2	13.0	5.4	2.3	16.0	9.7	4.7	16.6	10.5	5.2
7.8	3.0	1.1	9.2	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
10.5	3.3	1.2	12.7	5.4	2.3	15.8	9.6	4.6	16.3	10.3	5.1
9.1	3.2	1.2	10.9	5.1	2.2	13.2	8.6	4.2	13.6	9.2	4.5
10.7	3.3	1.2	12.9	5.4	2.3	16.0	9.7	4.7	16.6	10.5	5.2
8.0	3.1	1.1	9.5	4.7	2.1	11.4	7.7	3.7	11.8	8.1	3.9
8.8	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.1	13.1	8.9	4.4
8.8	3.1	1.1	10.6	5.0	2.2	12.9	8.4	4.0	13.3	9.0	4.3
9.3	3.2	1.2	11.2	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.0	10.2	5.1
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.0	10.3	5.1
7.2	3.0	1.1	8.5	4.5	2.0	10.1	7.0	3.3	10.4	7.3	3.5
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	14.0	9.3	4.5
9.3	3.2	1.2	11.2	5.1	2.2	13.6	8.8	4.3	14.1	9.4	4.6
11.3	3.4	1.2	13.7	5.5	2.4	17.0	10.0	4.9	17.6	11.0	5.4
8.0	3.1	1.1	9.5	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.5	15.7	10.1	4.9
9.6	3.2	1.2	11.6	5.1	2.2	14.2	8.9	4.3	14.7	9.6	4.6
9.4	3.2	1.2	11.5	5.1	2.2	13.9	8.8	4.3	14.3	9.4	4.6
10.1	3.3	1.2	12.2	5.3	2.3	15.0	9.3	4.6	15.5	10.0	5.0
10.8	3.5	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.7	10.6	5.2
7.5	3.0	1.1	8.6	4.5	2.0	10.2	7.0	3.4	10.5	7.4	3.5
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
10.5	3.5	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.0

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: D

SIGMAP = 1.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET (NMI)	CLASS (NMI)	ID	DET (NMI)	CLASS (NMI)	ID	DET (NMI)	CLASS (NMI)	ID	DET (NMI)	CLASS (NMI)	ID
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
5.3	2.6	1.0	6.1	3.7	1.8	7.0	5.1	2.3	7.2	5.2	2.3
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.5	6.8	3.1
6.2	2.8	1.0	7.2	4.1	1.9	8.4	6.0	2.8	8.6	6.2	2.8
6.8	2.9	1.1	7.9	4.3	2.0	9.4	6.5	3.1	9.6	6.8	3.2
6.3	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
6.3	2.8	1.0	7.3	4.2	1.9	8.6	6.1	2.8	8.8	6.3	2.9
5.1	2.6	1.0	5.8	3.6	1.7	6.6	4.8	2.2	6.8	4.9	2.2
6.3	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
6.3	2.8	1.0	7.3	4.2	1.9	8.6	6.1	2.8	8.8	6.3	2.9
8.7	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
8.7	3.1	1.1	10.4	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
9.8	3.2	1.2	11.9	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
9.6	3.2	1.2	11.5	5.1	2.2	14.2	8.9	4.3	14.7	9.6	4.6
10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.1	13.5	9.1	4.4
8.7	3.2	1.1	10.4	4.9	2.2	12.6	8.3	4.0	13.0	8.8	4.3
8.1	3.1	1.1	9.6	4.8	2.1	11.6	7.8	3.7	12.0	8.2	3.9
9.6	3.2	1.2	11.5	5.2	2.2	14.1	8.9	4.3	14.6	9.6	4.7
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.0	2.8	1.0	7.0	4.0	1.9	8.1	5.8	2.7	8.3	6.0	2.7
7.0	2.9	1.1	8.2	4.4	2.0	9.8	6.8	3.2	10.0	7.1	3.3
6.8	2.9	1.0	7.9	4.3	2.0	9.4	6.6	3.1	9.6	6.9	3.2
7.0	2.9	1.1	8.2	4.4	2.0	9.8	6.8	3.2	10.0	7.1	3.3
6.1	2.8	1.0	7.1	4.1	1.9	8.3	5.9	2.8	8.5	6.1	2.8
6.6	2.9	1.0	7.7	4.3	2.0	9.1	6.4	3.0	9.3	6.7	3.1
5.5	2.7	1.0	6.4	3.8	1.8	7.4	5.3	2.4	7.5	5.5	2.5
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.1
6.6	2.9	1.0	7.7	4.3	1.9	9.1	6.4	3.0	9.3	6.6	3.1
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
8.1	3.1	1.1	9.7	4.8	2.1	11.7	7.8	3.8	12.0	8.3	4.0
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.4	9.5	4.6
9.1	3.2	1.1	11.0	5.0	2.2	13.4	8.6	4.1	13.9	9.2	4.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.1	13.5	9.1	4.5
8.3	3.1	1.1	9.9	4.8	2.1	11.9	7.9	3.9	12.3	8.4	4.1
7.7	3.0	1.1	9.1	4.7	2.1	10.9	7.4	3.6	11.2	7.8	3.7
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
10.5	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.2	10.3	5.1
11.2	3.4	1.2	13.6	5.5	2.3	17.0	10.0	4.8	17.6	10.9	5.4
11.8	3.4	1.2	14.4	5.6	2.4	17.9	10.3	5.0	18.6	11.3	5.5
11.4	3.4	1.2	14.0	5.5	2.3	17.5	10.1	4.8	18.1	11.1	5.4
13.0	3.5	1.2	15.9	5.7	2.4	20.1	11.0	5.2	20.8	12.2	5.8
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.3	10.4	5.1
10.8	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.7	10.5	5.2
11.0	3.3	1.2	13.4	5.4	2.3	16.6	9.9	4.8	17.2	10.7	5.3
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
12.1	3.4	1.2	14.8	5.6	2.4	18.6	10.5	5.1	19.2	11.6	5.6
9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
10.4	3.3	1.2	12.5	5.3	2.3	15.4	9.5	4.6	16.0	10.2	5.0
9.3	3.2	1.2	11.2	5.1	2.2	13.6	8.8	4.3	14.1	9.3	4.6
10.7	3.3	1.2	13.0	5.4	2.3	16.2	9.6	4.6	16.8	10.5	5.1
11.5	3.4	1.2	14.0	5.5	2.4	17.5	10.2	4.9	18.2	11.1	5.5
9.9	3.3	1.2	11.9	5.2	2.3	14.6	9.1	4.5	15.1	9.8	4.8
10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
9.2	3.2	1.2	11.0	5.1	2.2	13.5	8.7	4.2	13.9	9.2	4.5
10.8	3.3	1.2	13.1	5.4	2.3	16.3	9.7	4.7	16.8	10.6	5.2
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
8.8	3.2	1.1	10.6	5.0	2.2	12.9	8.4	4.0	13.3	8.9	4.3
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.2	14.3	9.4	4.6
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
9.3	3.2	1.2	11.2	5.1	2.2	13.6	8.8	4.3	14.1	9.3	4.6
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.2	9.4	4.6
8.3	3.1	1.1	9.9	4.8	2.1	12.0	7.9	3.8	12.4	8.5	4.1
9.7	3.2	1.2	11.7	5.2	2.2	14.3	9.0	4.4	14.8	9.7	4.7
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
9.7	3.2	1.2	11.6	5.2	2.3	14.3	9.0	4.4	14.7	9.7	4.8
8.8	3.2	1.1	10.6	5.0	2.2	12.9	8.4	4.0	13.3	8.9	4.3
10.6	3.3	1.2	12.9	5.4	2.3	16.0	9.6	4.6	16.5	10.4	5.1
10.2	3.3	1.2	12.3	5.2	2.3	15.3	9.3	4.5	15.8	10.0	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.8	9.2	4.6
9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
8.3	3.1	1.1	9.9	4.8	2.1	12.0	7.9	3.8	12.4	8.5	4.1
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
10.0	3.3	1.2	12.1	5.2	2.3	14.9	9.2	4.5	15.4	9.9	4.8

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: E

SIGMAP = 1.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
7.1	2.9	1.1	8.3	4.5	2.0	9.9	6.8	3.2	10.1	7.2	3.4
5.1	2.6	1.0	5.8	3.6	1.7	6.7	4.9	2.2	6.9	5.0	2.2
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.1	2.8	1.0	7.0	4.1	1.9	8.2	5.9	2.7	8.4	6.1	2.8
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.5	6.7	3.1
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
4.8	2.5	0.9	5.5	3.5	1.7	6.3	4.5	2.0	6.4	4.7	2.1
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.8
6.4	2.8	1.0	7.4	4.2	1.9	8.8	6.2	2.9	9.0	6.4	3.0
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.1	9.4	4.6
8.5	3.1	1.1	10.1	4.9	2.1	12.3	8.1	3.9	12.6	8.6	4.1
9.7	3.2	1.2	11.7	5.2	2.2	14.3	9.0	4.4	14.8	9.7	4.7
9.4	3.2	1.1	11.3	5.1	2.2	13.9	8.8	4.2	14.3	9.4	4.5
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.2	13.6	9.1	4.5
7.8	3.0	1.1	9.2	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.3	14.4	9.5	4.6
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.1	13.7	9.2	4.5
6.9	2.9	1.1	8.1	4/4	2.0	9.6	6.7	3.2	9.8	7.0	3.3
5.8	2.7	1.0	6.7	4.0	1.8	7.8	5.6	2.6	8.0	5.8	2.6
6.9	2.9	1.1	8.0	4.4	2.0	9.5	6.6	3.1	9.8	6.9	3.2
6.6	2.9	1.0	7.8	4.3	1.9	9.2	6.4	3.0	9.4	6.7	3.1
6.8	2.9	1.1	8.0	4.4	2.0	9.5	6.6	3.1	9.7	6.9	3.2
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.9	2.9	1.1	8.1	4.4	2.0	9.5	6.7	3.2	9.8	7.0	3.3
5.2	2.6	1.0	6.0	3.7	1.8	6.9	5.0	2.3	7.0	5.1	2.3
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.6	2.9	1.0	7.7	4.3	2.0	9.1	6.4	3.0	9.3	6.7	3.1
9.9	3.3	1.2	11.9	5.2	2.3	14.6	9.2	4.5	15.1	9.8	4.9
7.9	3.1	1.1	9.3	4.7	2.1	11.3	7.6	3.6	11.6	8.0	3.8
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.7	4.2	14.1	9.3	4.6
8.9	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.0	13.6	9.1	4.3
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	14.0	9.3	4.5
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.8	4.3
7.4	3.0	1.1	8.7	4.6	2.0	10.4	7.1	3.4	10.7	7.5	3.6
8.9	3.2	1.1	10.7	5.0	2.2	13.1	8.5	4.1	13.5	9.0	4.4
8.9	3.2	1.1	10.6	5.0	2.2	12.9	8.4	4.1	13.3	9.0	4.4
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.0	3.3	1.2	13.3	5.4	2.3	16.6	9.8	4.8	17.2	10.7	5.3
11.7	3.4	1.2	14.2	5.6	2.4	17.8	10.3	5.0	18.4	11.3	5.5
11.1	3.3	1.2	13.6	5.4	2.3	17.0	9.9	4.8	17.6	10.8	5.3
12.9	3.5	1.2	15.9	5.7	2.4	20.0	11.0	5.2	20.8	12.2	5.8
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.3	3.4	1.2	13.7	5.5	2.4	17.1	10.0	4.9	17.7	11.0	5.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
12.1	3.4	1.2	14.8	5.6	2.4	18.5	10.5	5.0	19.2	11.6	5.6
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.4	10.4	5.1
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
9.8	3.3	1.2	11.8	5.2	2.3	14.6	9.1	4.4	15.0	9.8	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	5.0
10.5	3.3	1.2	12.7	5.3	2.3	15.8	9.5	4.6	16.4	10.3	5.0
11.4	3.4	1.2	13.9	5.5	2.4	17.4	10.1	4.9	18.0	11.1	5.4
10.2	3.3	1.2	12.3	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
10.3	3.3	1.2	12.4	5.3	2.3	15.4	9.4	4.6	15.9	10.2	5.0
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
10.7	3.3	1.2	13.0	5.4	2.3	16.1	9.7	4.7	16.7	10.5	5.2
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	13.9	9.3	4.6
9.7	3.2	1.2	11.6	5.2	2.3	14.3	9.0	4.4	14.8	9.7	4.8
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.8	8.7	4.2
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.0	4.4
9.2	3.2	1.1	11.1	5.1	2.2	13.6	8.7	4.2	14.0	9.3	4.5
9.8	3.3	1.2	11.8	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
9.7	3.2	1.2	11.7	5.2	2.3	14.3	9.0	4.4	14.8	9.7	4.8
9.7	3.2	1.2	11.7	5.2	2.3	14.4	9.1	4.4	14.9	9.7	4.8
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.3	14.5	9.5	4.7
9.2	3.2	1.2	11.0	5.1	2.2	13.5	8.7	4.2	13.9	9.3	4.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.8	8.7	4.2
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.2	10.3	5.0
10.0	3.2	1.2	12.1	5.2	2.2	15.0	9.2	4.4	15.5	9.9	4.8
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
9.6	3.2	1.2	11.5	5.2	2.2	14.0	8.9	4.4	14.5	9.6	4.7
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.2	3.9
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.5	15.7	10.1	4.9

FLIGHT ALTITUDE = 1,500 FT. COMBINATION: F

SIGMAP = 1.5 SIGMAT = 4.0 SIGMARH 8.0

TARGET #1			TARGET#2			TARGET#3			TARGET#4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
8.2	3.1	1.1	9.7	4.8	2.1	11.8	7.8	3.8	12.1	8.3	4.0
4.7	2.5	0.9	5.4	3.4	1.6	6.1	4.4	2.0	6.2	4.5	2.0
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.8
5.8	2.7	1.0	6.7	4.0	1.8	7.9	5.6	2.6	8.0	5.8	2.6
6.1	2.8	1.0	7.1	4.1	1.9	8.3	5.9	2.7	8.5	6.1	2.8
7.4	3.0	1.1	8.7	4.6	2.0	10.5	7.2	3.4	10.7	7.5	3.6
7.3	3.0	1.1	8.6	4.5	2.0	10.2	7.0	3.4	10.5	7.4	3.5
4.3	2.4	0.9	4.9	3.2	1.5	5.5	4.0	1.8	5.6	4.1	1.8
5.9	2.8	1.0	6.9	4.0	1.9	8.0	5.7	2.6	8.2	5.9	2.7
6.5	2.9	1.0	7.6	4.3	1.9	8.9	6.3	2.9	9.1	6.6	3.0
10.5	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.2	10.3	5.1
7.9	3.1	1.1	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.1	9.4	4.6
9.0	3.2	1.1	10.9	5.0	2.2	13.3	8.5	4.1	13.7	9.1	4.4
9.1	3.2	1.1	11.0	5.1	2.2	13.3	8.6	4.2	13.8	9.2	4.5
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.5	9.5	4.6
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	5.0
9.6	3.2	1.2	11.5	5.2	2.2	14.1	9.0	4.4	14.5	9.6	4.7
7.1	3.0	1.1	8.4	4.5	2.0	9.9	6.9	3.3	10.2	7.2	3.4
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.8	9.2	4.5
7.9	3.1	1.1	9.3	4.7	2.1	11.2	7.5	3.6	11.5	8.0	3.8
5.3	2.6	1.0	6.1	3.8	1.8	7.1	5.1	2.3	7.2	5.3	2.4
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.8	8.9	6.4	2.9
6.5	2.9	1.0	7.5	4.2	1.9	8.9	6.2	2.9	9.1	6.5	3.0
7.0	2.9	1.1	8.2	4.5	2.0	9.8	6.8	3.2	10.0	7.1	3.4
7.4	3.0	1.1	8.7	4.6	2.0	10.3	7.1	3.4	10.6	7.5	3.5
6.6	2.9	1.0	7.7	4.3	1.9	9.0	6.4	3.0	9.2	6.6	3.1
4.6	2.5	0.9	5.2	3.4	1.6	6.0	4.3	1.9	6.1	4.4	2.0
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.9
11.0	3.4	1.2	13.4	5.5	2.3	16.6	9.9	4.8	17.2	10.8	5.3
7.3	3.0	1.1	8.6	4.6	2.0	10.3	7.1	3.4	10.6	7.4	3.5
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.4	4.1	13.4	9.0	4.4
8.6	3.1	1.1	10.3	4.9	2.1	12.6	8.2	3.9	13.0	8.8	4.2
8.7	3.1	1.1	10.5	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
10.2	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.6	15.6	10.1	5.0
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.3	13.8	9.3	4.6
6.7	2.9	1.1	7.8	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.2
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.8	4.2
9.0	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.1	4.4
12.1	3.4	1.2	14.8	5.6	2.4	18.6	10.5	5.0	19.2	11.6	5.6
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.1	10.2	5.0
11.3	3.4	1.2	13.7	5.5	2.4	17.1	10.0	4.9	17.7	11.0	5.4
10.7	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.8	10.5	5.1
12.8	3.5	1.2	15.7	5.7	2.4	19.9	10.9	5.2	20.6	12.1	5.8
11.8	3.4	1.2	14.4	5.6	2.4	18.0	10.3	5.0	18.6	11.3	5.5
11.5	3.4	1.2	13.9	5.5	2.4	17.3	10.1	4.9	17.9	11.1	5.5
8.7	3.2	1.1	10.4	5.0	2.2	12.6	8.3	4.0	13.0	8.9	4.3
11.8	3.4	1.2	14.4	5.6	2.4	18.1	10.4	5.0	18.7	11.4	5.5
10.2	3.3	1.2	12.2	5.3	2.3	15.0	9.3	4.6	15.5	10.1	5.0
11.2	3.4	1.2	13.7	5.5	2.3	17.1	10.0	4.8	17.7	10.9	5.4
9.3	3.2	1.2	11.1	5.1	2.2	13.6	8.7	4.2	14.1	9.3	4.6
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.1	9.8	4.8
10.0	3.3	1.2	12.1	5.2	2.3	15.0	9.2	4.5	15.5	9.9	4.8
11.2	3.4	1.2	13.7	5.5	2.3	17.1	10.0	4.8	17.7	10.9	5.4
10.9	3.3	1.2	13.3	5.4	2.3	16.5	9.8	4.8	17.1	10.7	5.3
10.6	3.3	1.2	12.8	5.4	2.3	15.9	9.6	4.7	16.4	10.4	5.1
8.0	3.1	1.1	9.4	4.7	2.1	11.3	7.6	3.7	11.6	8.1	3.9
10.5	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.3	10.3	5.1
9.0	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.1	4.5
10.6	3.3	1.2	12.7	5.4	2.3	15.8	9.6	4.7	16.3	10.4	5.1
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.8	4.3
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.4	4.0	13.4	9.0	4.3
9.3	3.2	1.2	11.2	5.1	2.2	13.8	8.8	4.2	14.2	9.4	4.6
10.5	3.3	1.2	12.7	5.4	2.3	15.7	9.6	4.7	16.3	10.4	5.1
10.5	3.3	1.2	12.6	5.4	2.3	15.6	9.5	4.7	16.1	10.3	5.1
7.4	3.0	1.1	8.7	4.6	2.0	10.3	7.1	3.4	10.6	7.5	3.5
9.2	3.2	1.1	11.0	5.1	2.2	13.5	8.6	4.2	13.9	9.2	4.5
11.1	3.4	1.2	13.5	5.5	2.4	16.8	10.0	4.8	17.4	10.8	5.4
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
10.0	3.3	1.2	12.1	5.2	2.3	14.9	9.2	4.5	15.4	9.9	4.8
9.7	3.2	1.2	11.7	5.1	2.2	14.4	9.0	4.3	14.8	9.6	4.7
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.3	9.4	4.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.5	4.6	15.9	10.2	5.1
10.9	3.3	1.2	13.2	5.4	2.3	16.3	9.8	4.8	16.9	10.6	5.2
7.4	3.0	1.1	8.7	4.6	2.0	10.4	7.1	3.4	10.7	7.5	3.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.1	13.5	9.1	4.4
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.0

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: A

SIGMAP = 2.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #3		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
8.7	2.8	1.3	10.4	4.7	2.0	12.7	8.2	3.5	13.1	8.8	4.0
13.3	3.1	1.4	16.6	5.1	2.5	21.3	11.0	4.0	22.2	12.3	4.6
10.6	2.9	1.4	13.0	5.2	2.0	16.2	9.7	4.1	16.7	10.5	4.8
11.1	2.9	1.4	13.7	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
10.6	2.9	1.4	12.9	5.2	2.0	16.1	9.7	4.1	16.7	10.5	4.8
10.5	2.9	1.4	12.9	5.2	2.0	16.0	9.6	4.1	16.6	10.4	4.8
8.5	2.8	1.3	10.1	4.7	1.9	12.2	8.0	3.4	12.6	8.6	3.5
10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.0	16.4	10.4	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.6	12.3	5.9
11.7	3.0	1.4	14.4	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.8	21.7	12.2	5.9
13.8	3.0	1.4	17.3	5.8	2.1	22.4	11.5	4.9	23.3	12.7	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.2	11.2	4.9	22.0	12.4	5.9
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.4	11.9	5.7
11.7	3.0	1.4	14.4	5.5	2.0	18.1	10.4	4.5	18.8	11.4	5.4
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.3	17.7	10.9	5.1
12.7	3.0	1.4	15.7	5.7	2.1	20.1	10.9	4.7	20.8	12.0	5.8
12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.2	11.2	5.2
9.7	2.8	1.4	11.7	5.0	2.0	14.5	9.1	3.8	14.9	9.7	4.4
11.7	2.9	1.4	14.4	5.4	2.0	18.2	10.3	4.4	18.9	11.4	5.3
11.5	2.9	1.4	14.1	5.4	2.0	17.8	10.2	4.3	18.5	11.2	5.1
11.3	2.9	1.4	13.9	5.4	2.0	17.4	10.1	4.3	18.0	11.1	5.1
10.4	2.9	1.4	12.6	5.2	2.0	15.7	9.5	4.1	16.2	10.3	4.8
10.7	2.9	1.4	13.1	5.3	2.0	16.4	9.8	4.2	17.0	10.6	4.9
9.1	2.8	1.3	10.9	4.9	2.0	13.4	8.6	3.7	13.8	9.2	4.2
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.1	16.5	10.4	4.8
11.5	2.9	1.4	14.2	5.4	2.0	17.8	10.2	4.4	18.5	11.2	5.2
14.8	3.1	1.4	18.5	5.9	2.1	23.8	11.9	5.3	24.8	13.2	6.1
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	19.9	11.7	5.6
14.2	3.1	1.4	17.8	5.9	2.1	22.9	11.6	5.1	23.9	12.9	6.0
14.6	3.1	1.4	18.5	5.9	2.1	24.0	11.8	5.1	25.0	13.1	6.0
14.1	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.5	12.8	6.0
13.5	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.9	22.3	12.5	5.9
12.5	3.0	1.4	15.3	5.6	2.1	19.4	10.8	4.7	20.1	11.9	5.7
11.6	3.0	1.4	14.3	5.5	2.0	17.9	10.3	4.4	18.6	11.3	5.3
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.3	12.5	5.9
13.9	3.0	1.4	17.3	5.8	2.1	22.2	11.5	5.0	23.1	12.7	6.0
15.2	3.1	1.4	19.1	6.0	2.1	24.8	12.1	5.4	25.8	13.4	6.2
13.9	3.0	1.4	17.4	5.9	2.1	22.4	11.5	5.0	23.3	12.7	6.0
14.6	3.1	1.4	18.3	5.9	2.1	23.7	11.8	5.2	24.7	13.1	6.1
15.4	3.1	1.4	19.5	6.0	2.1	25.4	12.1	5.3	26.5	13.5	6.2
15.7	3.1	1.4	19.8	6.0	2.1	25.9	12.2	5.5	27.0	13.7	6.2
14.3	3.1	1.4	17.9	5.9	2.1	23.2	11.7	5.1	24.2	13.0	6.0
14.2	3.1	1.4	17.8	5.9	2.1	22.9	11.7	5.1	23.9	12.9	6.0
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.7	20.9	12.0	5.8
14.9	3.1	1.4	18.7	5.9	2.1	24.3	11.9	5.3	25.4	13.3	6.1
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
14.5	3.1	1.4	18.1	5.9	2.1	23.4	11.8	5.2	24.3	13.1	6.1
13.2	3.0	1.4	16.4	5.8	2.1	21.0	11.2	4.9	21.8	12.3	5.9
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
15.1	3.1	1.4	19.2	5.9	2.1	25.1	12.0	5.3	26.1	13.4	6.1
14.7	3.1	1.4	18.5	5.9	2.1	24.0	11.9	5.2	25.0	13.2	6.1
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.4	5.0	22.8	12.6	6.0
13.7	3.0	1.4	17.0	5.8	2.1	21.8	11.4	5.0	22.8	12.6	6.0
12.3	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.6	20.0	11.8	5.6
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.7	12.8	6.0
13.3	3.0	1.4	16.4	5.8	2.1	20.9	11.2	4.9	21.8	12.4	5.9
13.6	3.0	1.4	16.8	5.8	2.1	21.5	11.4	5.0	22.4	12.5	5.9
12.1	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.6	11.6	5.5
12.4	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.7	20.0	11.8	5.7
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.4	4.9	22.9	12.6	5.9
13.6	3.0	1.4	16.8	5.8	2.1	21.6	11.4	4.9	22.5	12.5	5.9
12.8	3.0	1.4	15.9	5.7	2.1	20.2	11.0	4.8	21.0	12.1	5.8
11.5	2.9	1.4	14.1	5.4	2.0	17.8	10.2	4.4	18.4	11.2	5.2
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.4	12.2	5.9
13.0	3.0	1.4	16.0	5.7	2.1	20.5	11.1	4.8	21.3	12.2	5.8
12.8	3.0	1.4	15.8	5.7	2.1	20.1	10.9	4.7	20.9	12.0	5.8
14.1	3.1	1.4	17.6	5.9	2.1	22.6	11.6	5.1	23.5	12.8	6.0
12.2	3.0	1.4	15.1	5.6	2.1	19.1	10.7	4.6	19.8	11.7	5.6
14.5	3.1	1.4	18.3	5.9	2.1	23.9	11.8	5.1	24.9	13.1	6.0
15.0	3.1	1.4	19.1	5.9	2.1	24.9	11.9	5.2	26.0	13.3	6.1
13.9	3.0	1.4	17.3	5.8	2.1	22.2	11.5	5.0	23.1	12.7	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.7	11.8	5.1	24.7	13.0	6.0
12.5	3.0	1.4	15.4	5.7	2.1	19.6	10.8	4.7	20.3	11.9	5.7
13.3	3.0	1.4	16.4	5.8	2.1	21.0	11.2	4.9	21.9	12.3	5.9
11.7	3.0	1.4	14.4	5.5	2.0	18.1	10.4	4.5	18.8	11.4	5.3
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.7	12.0	5.8

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: B

SIGMAP = 2.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
12.2	3.0	1.4	15.1	5.5	2.0	19.2	10.6	4.5	19.9	11.7	5.5
8.5	2.8	1.3	10.1	4.7	1.9	12.3	8.0	3.4	12.7	8.6	3.9
10.9	2.9	1.4	13.4	5.3	2.0	16.8	9.9	4.2	17.4	10.8	4.9
10.4	2.9	1.4	12.7	5.1	2.0	15.8	9.5	4.0	16.3	10.3	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
10.7	2.9	1.4	13.1	5.2	2.0	16.4	9.7	4.1	17.0	10.6	4.9
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
8.3	2.7	1.3	9.9	4.6	1.9	11.9	7.9	3.4	12.3	8.4	3.8
10.3	2.9	1.4	12.6	5.1	2.0	15.6	9.5	4.0	16.2	10.3	4.7
11.2	2.9	1.4	13.7	5.3	2.0	17.2	10.0	4.2	17.8	11.0	5.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.2
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.5	12.2	5.8
13.6	3.0	1.4	17.0	5.8	2.1	21.9	11.3	4.9	22.8	12.5	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	22.0	12.4	5.9
12.5	3.0	1.4	15.4	5.6	2.1	19.7	10.8	4.7	20.5	11.9	5.7
12.1	3.0	1.4	14.8	5.6	2.1	18.8	10.6	4.6	19.5	11.6	5.5
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.3	17.5	10.8	5.0
12.6	3.0	1.4	15.6	5.6	2.1	19.9	10.9	4.7	20.6	11.9	5.7
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.6	12.2	5.9
12.0	3.0	1.4	14.7	5.5	2.0	18.6	10.5	4.5	19.3	11.5	5.4
9.5	2.8	1.4	11.4	4.9	2.0	14.0	8.9	3.8	14.5	9.5	4.3
11.5	2.9	1.4	14.2	5.4	2.0	17.9	10.3	4.4	18.6	11.2	5.2
11.3	2.9	1.4	13.8	5.3	2.0	17.4	10.1	4.3	18.0	11.0	5.1
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.1	4.3	17.8	11.0	5.1
10.6	2.9	1.4	12.9	5.2	2.0	16.0	9.7	4.1	16.6	10.5	4.8
11.1	2.9	1.4	13.6	5.3	2.0	17.0	10.0	4.3	17.6	10.9	5.0
8.9	2.8	1.3	10.6	4.8	2.0	13.0	8.4	3.6	13.4	9.0	4.1
10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.1	16.3	10.4	4.8
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
15.3	3.1	1.4	19.2	6.0	2.1	24.8	12.1	5.4	25.8	13.5	6.2
12.0	3.0	1.4	14.8	5.5	2.0	18.7	10.5	4.5	19.4	11.6	5.5
14.0	3.0	1.4	17.5	5.9	2.1	22.6	11.6	5.0	23.5	12.8	6.0
14.4	3.1	1.4	18.2	5.9	2.1	23.5	11.7	5.1	24.5	13.0	6.0
14.0	3.1	1.4	17.4	5.9	2.1	22.3	11.6	5.0	23.2	12.7	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.8	20.8	12.1	5.8
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.2	11.1	5.2
13.4	3.0	1.4	16.7	5.8	2.1	21.3	11.3	4.9	22.2	12.4	5.9
14.0	3.1	1.4	17.5	5.9	2.1	22.4	11.6	5.1	23.4	12.8	6.0
15.6	3.1	1.4	19.7	6.0	2.1	25.6	12.2	5.4	26.7	13.7	6.2
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	22.9	12.6	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
15.1	3.1	1.4	19.1	5.9	2.1	24.9	12.0	5.3	26.0	13.4	6.1
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
15.8	3.1	1.4	20.0	6.0	2.1	26.0	12.3	5.5	27.2	13.7	6.2
14.3	3.1	1.4	18.0	5.9	2.1	23.2	11.7	5.1	24.2	13.0	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
12.7	3.0	1.4	15.6	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.8
14.8	3.1	1.4	18.7	5.9	2.1	24.2	11.9	5.3	25.3	13.2	6.1
14.9	3.1	1.4	18.8	6.0	2.1	24.2	12.0	5.3	25.3	13.3	6.1
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.4	12.2	5.8
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
14.9	3.1	1.4	18.8	5.9	2.1	24.5	11.9	5.2	25.6	13.3	6.1
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.2	25.1	13.2	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.0	12.7	6.0
14.0	3.1	1.4	17.4	5.9	2.1	22.4	11.6	5.1	23.4	12.8	6.0
12.2	3.0	1.4	15.0	5.6	2.1	19.0	10.6	4.6	19.8	11.7	5.5
14.0	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.5	12.8	6.0
13.3	3.0	1.4	16.4	5.8	2.1	21.0	11.2	4.9	21.8	12.4	5.9
14.0	3.1	1.4	17.5	5.9	2.1	22.4	11.6	5.1	23.3	12.8	6.0
11.8	3.0	1.4	14.6	5.5	2.0	18.4	10.4	4.5	19.1	11.5	5.4
12.2	3.0	1.4	15.0	5.6	2.1	19.1	10.7	4.6	19.8	11.7	5.6
13.4	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.4	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
12.9	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.8	21.1	12.1	5.8
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.7	12.3	5.9
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.2	11.1	5.2
12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.5	12.3	5.9
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.4	13.1	6.1
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.5	4.5	19.2	11.5	5.4
14.4	3.1	1.4	18.1	5.9	2.1	23.5	11.7	5.1	24.5	13.0	6.0
14.8	3.1	1.4	18.7	5.9	2.1	24.4	11.8	5.1	25.4	13.2	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.0	11.5	5.0	23.0	12.6	6.0
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.3	11.9	5.7
13.7	3.0	1.4	17.0	5.8	2.1	21.9	11.4	5.0	22.8	12.6	5.9
11.6	3.0	1.4	14.2	5.5	2.0	17.9	10.3	4.4	18.6	11.3	5.3
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.8	12.0	5.8
14.7	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.2	25.2	13.2	6.1

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: C

SIGMAP = 2.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
13.4	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.8	22.3	12.4	5.9
8.0	2.7	1.3	9.5	4.5	1.9	11.4	7.6	3.3	11.8	8.1	3.6
10.6	2.9	1.4	13.0	5.2	2.0	16.2	9.7	4.1	16.7	10.5	4.8
10.0	2.8	1.4	12.1	5.0	2.0	15.0	9.3	3.9	15.5	10.0	4.5
10.7	2.9	1.4	13.1	5.2	2.0	16.4	9.8	4.1	17.0	10.6	4.8
10.8	2.9	1.4	13.3	5.3	2.0	16.6	9.8	4.2	17.2	10.7	4.9
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.4	4.4	19.2	11.5	5.3
7.9	2.7	1.3	9.3	4.5	1.9	11.1	7.5	3.2	11.5	7.9	3.6
10.1	2.9	1.4	12.2	5.1	2.0	15.1	9.3	3.9	15.6	10.0	4.6
11.3	2.9	1.4	14.0	5.4	2.0	17.5	10.1	4.3	18.2	11.1	5.1
14.4	3.1	1.4	18.0	5.9	2.1	23.3	11.7	5.2	24.2	13.0	6.1
10.0	2.9	1.4	13.3	5.3	2.0	16.6	9.8	4.2	17.2	10.7	5.0
12.7	3.0	1.4	15.8	5.7	2.1	20.1	10.9	4.7	20.9	12.0	5.7
13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.7	21.8	12.2	5.8
13.2	3.0	1.4	16.4	5.8	2.0	20.9	11.2	4.8	21.8	12.3	5.9
12.4	3.0	1.4	15.3	5.6	2.1	19.5	10.7	4.6	20.3	11.8	5.6
12.8	3.0	1.4	15.7	5.7	2.1	20.0	11.0	4.8	20.7	12.0	5.8
10.7	2.9	1.4	13.1	5.3	2.0	16.3	9.8	4.2	16.9	10.6	4.9
12.3	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.6	20.1	11.8	5.6
13.3	3.0	1.4	16.5	5.8	2.1	21.0	11.2	4.9	21.9	12.3	5.9
13.0	3.0	1.4	16.1	5.7	2.1	20.5	11.1	4.8	21.3	12.2	5.8
9.0	2.8	1.3	10.7	4.8	2.0	13.1	8.4	3.6	13.5	9.1	4.1
11.2	2.9	1.4	13.8	5.3	2.0	17.3	10.1	4.3	17.9	11.0	5.1
10.8	2.9	1.4	13.2	5.2	2.0	16.5	9.8	4.1	17.1	10.7	4.9
11.0	2.9	1.4	13.5	5.3	2.0	16.8	9.9	4.2	17.4	10.8	5.0
10.8	2.9	1.4	13.1	5.3	2.0	16.4	9.8	4.2	17.0	10.6	4.9
11.6	3.0	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.3
8.4	2.7	1.3	9.9	4.6	1.9	12.0	7.9	3.4	12.4	8.4	3.8
10.2	2.9	1.4	12.4	5.1	2.0	15.3	9.4	4.0	15.9	10.2	4.7
11.7	2.9	1.4	14.4	5.4	2.0	18.1	10.3	4.4	18.8	11.3	5.3
16.3	3.1	1.4	20.6	6.1	2.1	26.7	12.5	5.6	27.9	14.0	6.3
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.3	11.2	5.2
13.7	3.0	1.4	17.0	5.8	2.1	21.9	11.4	4.9	22.8	12.6	5.9
14.0	3.0	1.4	17.5	5.8	2.1	22.6	11.5	5.0	23.5	12.7	6.0
13.7	3.0	1.4	17.0	5.8	2.1	21.7	11.4	5.0	22.6	12.6	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.7	11.4	5.0	22.6	12.5	5.9
13.5	3.0	1.4	16.7	5.8	2.1	21.3	11.4	5.0	22.1	12.5	5.9
10.9	2.9	1.4	13.3	5.3	2.0	16.7	9.9	4.2	17.3	10.8	5.0
13.2	3.0	1.4	16.4	5.8	2.1	20.9	11.2	4.9	21.7	12.3	5.9
14.2	3.1	1.4	17.7	5.9	2.1	22.8	11.6	5.1	23.7	12.9	6.0
16.4	3.1	1.4	20.8	6.1	2.1	27.2	12.5	5.6	28.4	14.0	6.3
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
14.3	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	12.9	6.0
14.6	3.1	1.4	18.4	5.9	2.1	23.8	11.8	5.2	24.8	13.1	6.1
15.9	3.1	1.4	20.2	6.0	2.1	26.3	12.3	5.5	27.5	13.8	6.2
14.2	3.1	1.4	17.7	5.9	2.1	23.0	11.6	5.1	23.9	12.9	6.0
15.0	3.1	1.4	18.9	6.0	2.1	24.5	12.0	5.3	25.5	13.3	6.1
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	20.0	11.8	5.6
14.7	3.1	1.4	18.4	5.9	2.1	23.9	11.8	5.2	24.9	13.1	6.1
14.4	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	13.0	6.0
15.7	3.1	1.4	19.9	6.0	2.1	25.8	12.3	5.5	26.9	13.7	6.2
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.4	11.9	5.7
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	22.0	12.4	5.9
14.4	3.1	1.4	18.1	5.9	2.1	23.5	11.7	5.1	24.4	13.0	6.0
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.3	25.2	13.2	6.1
13.8	3.8	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.1	12.6	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
11.8	3.0	1.4	14.5	5.5	2.0	18.3	10.4	4.5	18.9	11.4	5.4
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	22.9	12.6	6.0
13.2	3.0	1.4	16.3	5.8	2.1	20.7	11.2	4.9	21.6	12.3	5.9
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.3	25.1	13.3	6.1
11.2	2.9	1.4	13.8	5.4	2.0	17.3	10.1	4.3	17.9	11.0	5.1
12.0	3.0	1.4	14.7	5.5	2.1	18.6	10.5	4.6	19.3	11.6	5.5
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.0	4.7	21.5	12.2	5.8
13.4	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.1	12.4	5.9
12.8	3.0	1.4	15.8	5.7	2.1	20.2	10.9	4.7	21.0	12.0	5.8
13.9	3.1	1.4	17.4	5.9	2.1	22.3	11.5	5.1	23.2	12.7	6.0
11.1	2.9	1.4	13.6	5.3	2.0	17.0	10.0	4.3	17.6	10.9	5.1
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.7	12.0	5.8
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.4	5.9
15.3	3.1	1.4	19.3	6.0	2.1	25.0	12.1	5.4	26.1	13.5	6.2
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.1	4.3	17.9	11.0	5.1
14.0	3.0	1.4	17.5	5.8	2.1	22.7	11.5	5.0	23.7	12.7	6.0
14.3	3.0	1.4	18.0	5.9	2.1	23.3	11.6	5.0	24.3	12.9	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	4.9	22.5	12.5	5.9
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	20.0	11.8	5.6
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
11.3	2.9	1.4	13.8	5.4	2.0	17.3	10.1	4.3	18.0	11.0	5.2
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.3	11.9	5.7
15.1	3.1	1.4	19.1	5.9	2.1	24.8	12.0	5.3	25.9	13.4	6.1

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: D

SIGMAP = 1.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
11.5	2.9	1.4	14.2	5.4	2.0	17.8	10.2	4.3	18.5	11.2	5.2
8.8	2.8	1.3	10.5	4.8	2.0	12.8	8.3	3.5	13.2	8.9	4.0
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	4.9
10.7	2.9	1.4	13.1	5.2	2.0	16.3	9.7	4.1	16.9	10.6	4.8
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
10.5	2.9	1.4	12.8	5.2	2.0	16.0	9.6	4.1	16.6	10.4	4.8
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.0	16.5	10.4	4.7
8.5	2.8	1.3	10.2	4.7	1.9	12.3	8.1	3.4	12.7	8.6	3.9
10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.5	4.0	16.3	10.3	4.7
10.9	2.9	1.4	13.3	5.3	2.0	16.7	9.8	4.2	17.3	10.7	4.9
13.1	3.0	1.4	16.3	5.7	2.1	20.8	11.1	4.8	21.6	12.3	5.9
11.8	3.0	1.4	14.5	5.5	2.0	18.3	10.4	4.5	19.0	11.4	5.4
13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.8	21.7	12.2	5.8
13.9	3.0	1.4	17.4	5.8	2.1	22.5	11.5	4.9	23.4	12.7	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	22.0	12.4	5.9
12.9	3.0	1.4	16.0	5.7	2.1	20.4	11.0	4.8	21.2	12.1	5.8
12.4	3.0	1.4	15.3	5.6	2.1	19.5	10.8	4.6	20.3	11.8	5.6
11.8	3.0	1.4	14.5	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.0	4.3	17.8	11.0	5.1
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.8	12.0	5.7
11.3	2.9	1.4	13.9	5.4	2.0	17.4	10.1	4.3	18.0	11.1	5.2
9.8	2.8	1.4	11.8	5.0	2.0	14.6	9.1	3.9	15.0	9.8	4.5
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.3	18.6	11.3	5.2
11.3	2.9	1.4	13.9	5.4	2.0	17.5	10.1	4.3	18.1	11.1	5.2
10.3	2.9	1.4	12.6	5.2	2.0	15.6	9.5	4.1	16.1	10.3	4.7
10.8	2.9	1.4	13.2	5.3	2.0	16.4	9.8	4.2	17.0	10.7	4.9
9.2	2.8	1.3	11.0	4.9	2.0	13.5	8.6	3.7	14.0	9.3	4.2
10.6	2.9	1.4	12.9	5.2	2.0	16.0	9.6	4.1	16.6	10.5	4.8
11.3	2.9	1.4	14.0	5.4	2.0	17.5	10.1	4.3	18.2	11.1	5.1
14.6	3.1	1.4	18.3	5.9	2.1	23.6	11.9	5.2	24.5	13.1	6.1
12.3	3.0	1.4	15.2	5.6	2.1	19.2	10.7	4.6	20.0	11.8	5.6
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.6	12.8	6.0
14.7	3.1	1.4	18.6	5.9	2.1	24.1	11.8	5.2	25.1	13.2	6.1
14.0	3.1	1.4	17.5	5.9	2.1	22.4	11.6	5.1	23.4	12.8	6.0
13.4	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.1	12.4	5.9
12.4	3.0	1.4	15.3	5.6	2.1	19.3	10.8	4.7	20.1	11.8	5.7
11.7	3.0	1.4	14.3	5.5	2.0	18.1	10.3	4.4	18.7	11.3	5.3
13.5	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.9	22.3	12.5	5.9
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.5	5.0	22.8	12.6	6.0
15.1	3.1	1.4	19.0	6.0	2.1	24.6	12.0	5.3	25.6	13.4	6.1
13.9	3.0	1.4	17.3	5.9	2.1	22.3	11.5	5.0	23.3	12.7	6.0
14.6	3.1	1.4	18.3	5.9	2.1	23.7	11.8	5.2	24.7	13.1	6.1
15.4	3.1	1.4	19.6	6.0	2.1	25.5	12.1	5.3	26.6	13.5	6.2
15.7	3.1	1.4	19.8	6.0	2.1	25.8	12.2	5.4	26.9	13.7	6.2
14.3	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	13.0	6.0
14.3	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	12.9	6.0
14.2	3.1	1.4	17.7	5.9	2.1	22.8	11.6	5.1	23.8	12.9	6.0
12.9	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.8	21.1	12.1	5.8
14.8	3.1	1.4	18.7	5.9	2.1	24.3	11.9	5.3	25.3	13.3	6.1
14.4	3.1	1.4	18.0	5.9	2.1	23.2	11.8	5.2	24.2	13.0	6.1
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
13.6	3.0	1.4	16.8	5.8	2.1	21.6	11.4	5.0	22.4	12.5	5.9
13.2	3.0	1.4	16.3	5.8	2.1	20.7	11.2	4.9	21.6	12.3	5.9
15.2	3.1	1.4	19.3	6.0	2.1	25.2	12.0	5.3	26.2	13.4	6.1
14.7	3.1	1.4	18.5	5.9	2.1	24.0	11.9	5.2	25.0	13.2	6.1
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.4	5.0	22.8	12.6	6.0
13.6	3.0	1.4	17.0	5.8	2.1	21.7	11.4	5.0	22.6	12.6	5.9
12.4	3.0	1.4	15.3	5.6	2.1	19.4	10.7	4.6	20.2	11.8	5.6
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.6	12.8	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.6	5.9
12.1	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.7	11.7	5.5
12.3	3.0	1.4	15.1	5.6	2.1	19.1	10.7	4.6	19.8	11.7	5.6
13.7	3.0	1.4	17.2	5.8	2.1	22.1	11.4	4.9	23.0	12.6	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
12.9	3.0	1.4	16.0	5.7	2.1	20.4	11.0	4.8	21.2	12.1	5.8
12.8	3.0	1.4	15.8	5.7	2.1	20.2	11.0	4.7	21.0	12.1	5.8
11.6	3.0	1.4	14.2	5.4	2.0	17.9	10.3	4.4	18.6	11.3	5.3
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.4	12.2	5.8
13.0	3.0	1.4	16.1	5.7	2.1	20.5	11.1	4.8	21.3	12.2	5.8
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.6	12.9	6.0
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	19.9	11.7	5.6
14.4	3.1	1.4	18.1	5.9	2.1	23.6	11.7	5.1	24.6	13.0	6.0
15.1	3.1	1.4	19.2	5.9	2.1	25.0	12.0	5.2	26.1	13.3	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.0	12.7	6.0
12.6	3.0	1.4	15.5	5.7	2.1	19.7	10.9	4.7	20.5	11.9	5.8
13.3	3.0	1.4	16.6	5.8	2.1	21.2	11.2	4.9	22.1	12.4	5.9
11.7	3.0	1.4	14.4	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.8	20.9	12.1	5.8
14.5	3.1	1.4	18.2	5.9	2.1	23.6	11.7	5.1	24.6	13.0	6.0

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: E

SIGMAP = 1.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
12.1	3.0	1.4	14.9	5.5	2.0	18.9	10.6	4.5	19.7	11.6	5.4
8.5	2.8	1.3	10.2	4.7	1.9	12.4	8.1	3.5	12.7	8.6	3.9
10.8	2.9	1.4	13.3	5.2	2.0	16.6	9.8	4.1	17.2	10.7	4.9
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.0	16.5	10.4	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
10.7	2.9	1.4	13.0	5.2	2.0	16.3	9.7	4.1	16.9	10.6	4.8
10.9	2.9	1.4	13.4	5.3	2.0	16.8	9.9	4.2	17.4	10.8	4.9
8.4	2.7	1.3	9.9	4.6	1.9	12.1	7.9	3.4	12.4	8.5	3.8
10.3	2.9	1.4	12.5	5.1	2.0	15.6	9.5	4.0	16.1	10.2	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.6	10.8	5.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
11.5	2.9	1.4	14.2	5.4	2.0	17.8	10.2	4.4	18.5	11.2	5.3
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.0	4.8	21.5	12.2	5.8
13.6	3.0	1.4	17.1	5.8	2.1	22.0	11.4	4.9	22.9	12.5	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.6	20.4	11.9	5.7
12.1	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.6	11.7	5.6
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.3	17.7	10.9	5.1
12.6	3.0	1.4	15.5	5.6	2.1	19.8	10.8	4.7	20.6	11.9	5.7
13.0	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.5	12.2	5.8
11.8	3.0	1.4	14.6	5.5	2.0	18.4	10.4	4.5	19.0	11.5	5.4
9.5	2.8	1.4	11.5	5.0	2.0	14.1	8.9	3.8	14.6	9.6	4.4
11.4	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.3	18.4	11.2	5.2
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.1	4.3	18.2	11.1	5.1
11.2	2.9	1.4	13.8	5.4	2.0	17.3	10.1	4.3	17.9	11.0	5.1
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.1	16.5	10.4	4.8
11.2	2.9	1.4	13.7	5.3	2.0	17.1	10.0	4.3	17.8	11.0	5.1
9.0	2.8	1.3	10.7	4.8	2.0	13.1	8.5	3.6	13.6	9.1	4.1
10.5	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.1	16.4	10.4	4.8
11.4	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.3	18.3	11.2	5.2
15.2	3.1	1.4	19.0	6.0	2.1	24.6	12.1	5.4	25.6	13.4	6.2
12.1	3.0	1.4	14.8	5.5	2.1	18.8	10.6	4.6	19.5	11.6	5.5
13.9	3.0	1.4	17.4	5.8	2.1	22.3	11.5	5.0	23.3	12.7	6.0
14.5	3.1	1.4	18.3	5.9	2.1	23.7	11.7	5.1	24.7	13.0	6.0
13.9	3.0	1.4	17.3	5.9	2.1	22.2	11.5	5.0	23.1	12.7	6.0
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.3	12.5	5.9
12.8	3.0	1.4	15.7	5.7	2.1	20.0	11.0	4.8	20.7	12.1	5.8
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.3
13.4	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.1	12.4	5.9
13.9	3.0	1.4	17.3	5.8	2.1	22.2	11.5	5.0	23.1	12.7	6.0
15.6	3.1	1.4	19.7	6.0	2.1	25.6	12.2	5.4	26.7	13.7	6.2
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	22.9	12.6	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
15.1	3.1	1.4	19.1	5.9	2.1	24.9	12.0	5.3	26.0	13.4	6.1
15.8	3.1	1.4	20.0	6.0	2.1	26.0	12.3	5.5	27.2	13.7	6.2
14.3	3.1	1.4	18.0	5.9	2.1	23.2	11.7	5.1	24.2	13.0	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
12.7	3.0	1.4	15.6	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.8
14.8	3.1	1.4	18.7	5.9	2.1	24.2	11.9	5.3	25.3	13.2	6.1
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
14.8	3.1	1.4	18.6	5.9	2.1	24.0	11.9	5.3	25.0	13.2	6.1
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.5	12.2	5.9
13.5	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.9	22.3	12.5	5.9
14.9	3.1	1.4	18.9	5.9	2.1	24.6	11.9	5.2	25.7	13.3	6.1
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.3	25.1	13.2	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.0	12.7	6.0
13.9	3.0	1.4	17.4	5.9	2.1	22.3	11.5	5.0	23.2	12.7	6.0
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	19.9	11.7	5.6
14.0	3.0	1.4	17.4	5.9	2.1	22.5	11.6	5.0	23.4	12.8	6.0
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.9	21.6	12.3	5.9
14.1	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.5	12.8	6.0
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.5	4.5	19.2	11.5	5.4
12.2	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.6	11.7	5.6
13.5	3.0	1.4	16.8	5.8	2.1	21.6	11.3	4.9	22.5	12.5	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.3	12.5	5.9
12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
13.2	3.0	1.4	16.4	5.8	2.1	20.9	11.2	4.9	21.8	12.3	5.9
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.2
12.9	3.0	1.4	16.0	5.7	2.1	20.4	11.0	4.8	21.2	12.1	5.8
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.6	12.3	5.9
14.6	3.1	1.4	18.3	5.9	2.1	23.6	11.8	5.2	24.6	13.1	6.1
12.0	3.0	1.4	14.7	5.5	2.0	18.6	10.5	4.5	19.3	11.5	5.4
14.2	3.0	1.4	17.9	5.9	2.1	23.2	11.6	5.1	24.2	12.9	6.0
14.8	3.1	1.4	18.8	5.9	2.1	24.5	11.9	5.2	25.5	13.2	6.1
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.4	5.0	22.9	12.6	6.0
12.6	3.0	1.4	15.5	5.7	2.1	19.8	10.9	4.7	20.5	11.9	5.8
13.8	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	23.0	12.6	6.0
11.6	3.0	1.4	14.3	5.5	2.0	18.0	10.3	4.4	18.7	11.3	5.3
12.7	3.0	1.4	15.7	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.8
14.7	3.1	1.4	18.5	5.9	2.1	24.0	11.8	5.2	25.1	13.1	6.1

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: F

SIGMAP = 1.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
13.3	3.0	1.4	16.5	5.7	2.1	21.2	11.2	4.8	22.1	12.3	5.9
8.1	2.7	1.3	9.5	4.5	1.9	11.5	7.7	3.3	11.8	8.1	3.7
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.0	16.5	10.4	4.7
10.1	2.9	1.4	12.2	5.1	2.0	15.1	9.3	3.9	15.7	10.1	4.5
10.7	2.9	1.4	13.1	5.2	2.0	16.3	9.7	4.1	16.9	10.6	4.8
10.8	2.9	1.4	13.2	5.2	2.0	16.5	9.8	4.1	17.1	10.6	4.9
11.8	3.0	1.4	14.5	5.5	2.0	18.4	10.4	4.4	19.1	11.4	5.3
8.0	2.7	1.3	9.4	4.5	1.9	11.3	7.6	3.2	11.7	8.0	3.6
10.0	2.9	1.4	12.1	5.1	2.0	15.0	9.3	3.9	15.6	10.0	4.5
11.2	2.9	1.4	13.8	5.3	2.0	17.3	10.1	4.2	17.9	11.0	5.0
14.4	3.1	1.4	18.0	5.9	2.1	23.3	11.7	5.2	24.3	13.0	6.1
10.9	2.9	1.4	13.4	5.3	2.0	16.7	9.9	4.2	17.3	10.8	5.0
12.7	3.0	1.4	15.7	5.6	2.1	20.1	10.9	4.7	20.9	12.0	5.7
13.2	3.0	1.4	16.4	5.7	2.1	21.0	11.1	4.8	21.9	12.3	5.8
13.2	3.0	1.4	16.4	5.7	2.1	21.0	11.2	4.8	21.8	12.3	5.9
13.2	3.0	1.4	16.3	5.8	2.1	20.9	11.2	4.8	21.7	12.3	5.9
12.3	3.0	1.4	15.2	5.6	2.1	19.4	10.7	4.6	20.2	11.8	5.6
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.8	20.8	12.1	5.8
10.8	2.9	1.4	13.2	5.3	2.0	16.5	9.8	4.2	17.1	10.7	5.0
12.3	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.6	20.0	11.8	5.6
12.9	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.8	21.1	12.1	5.8
9.0	2.8	1.3	10.8	4.8	2.0	13.2	8.5	3.6	13.7	9.1	4.1
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.1	4.2	17.7	10.9	5.0
10.9	2.9	1.4	13.4	5.3	2.0	16.7	9.9	4.2	17.3	10.8	4.9
11.0	2.9	1.4	13.4	5.3	2.0	16.8	9.9	4.2	17.4	10.8	5.0
10.7	2.9	1.4	13.1	5.3	2.0	16.3	9.8	4.2	16.9	10.6	4.9
11.9	3.0	1.4	14.6	5.5	2.0	18.4	10.4	4.5	19.1	11.5	5.4
11.4	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.3	18.3	11.2	5.2
8.5	2.8	1.3	10.1	4.7	1.9	12.2	8.0	3.4	12.6	8.6	3.9
10.2	2.9	1.4	12.4	5.1	2.0	15.3	9.4	4.0	15.9	10.2	4.7
16.2	3.1	1.4	20.4	6.1	2.1	26.5	12.4	5.6	27.6	13.9	6.3
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.2
13.5	3.0	1.4	16.8	5.8	2.1	21.6	11.3	4.9	22.5	12.5	5.9
14.1	3.0	1.4	17.6	5.8	2.1	22.7	11.6	5.0	23.7	12.8	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.6	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.4	4.9	22.4	12.5	5.9
13.4	3.0	1.4	16.6	5.8	2.1	21.1	11.3	5.0	22.0	12.5	5.9
11.0	2.9	1.4	13.5	5.3	2.0	16.9	10.0	4.3	17.5	10.9	5.1
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.6	12.3	5.9
14.0	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.4	12.8	6.0
16.3	3.1	1.4	20.7	6.1	2.1	27.0	12.5	5.6	28.2	14.0	6.3
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
14.3	3.1	1.4	17.8	5.9	2.1	23.1	11.7	5.1	24.0	12.9	6.0
14.6	3.1	1.4	18.5	5.9	2.1	24.0	11.8	5.2	25.0	13.1	6.1
15.9	3.1	1.4	20.2	6.0	2.1	26.3	12.3	5.5	27.5	13.8	6.2
14.1	3.1	1.4	17.7	5.9	2.1	22.9	11.6	5.1	23.9	12.8	6.0
14.9	3.1	1.4	18.8	6.0	2.1	24.3	12.0	5.3	25.3	13.3	6.1
12.4	3.0	1.4	15.3	5.6	2.1	19.5	10.8	4.7	20.2	11.8	5.7
14.6	3.1	1.4	18.4	5.9	2.1	23.8	11.8	5.2	24.8	13.1	6.1
14.2	3.1	1.4	17.8	5.9	2.1	22.9	11.7	5.1	23.9	12.9	6.0
15.6	3.1	1.4	19.7	6.0	2.1	25.6	12.2	5.4	26.7	13.7	6.2
12.6	3.0	1.4	15.5	5.6	2.1	19.7	10.8	4.7	20.5	11.9	5.7
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.4	5.9
14.4	3.1	1.4	18.2	5.9	2.1	23.6	11.7	5.1	24.6	13.0	6.0
14.8	3.1	1.4	18.6	5.9	2.1	24.2	11.9	5.3	25.2	13.1	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.1	12.6	6.0
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.5	4.5	19.2	11.5	5.4
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.4	5.0	22.8	12.6	6.0
13.1	3.0	1.4	16.2	5.8	2.1	20.6	11.1	4.9	21.4	12.2	5.9
14.7	3.1	1.4	18.5	5.9	2.1	23.9	11.9	5.3	24.9	13.2	6.1
11.3	2.9	1.4	13.8	5.4	2.0	17.4	10.1	4.3	18.0	11.0	5.2
11.9	3.0	1.4	14.6	5.5	2.0	18.4	10.5	4.5	19.1	11.5	5.5
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.4	5.9
13.1	3.0	1.4	16.2	5.7	2.1	20.8	11.1	4.8	21.6	12.2	5.8
13.3	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.0	12.4	5.9
12.8	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.7	21.1	12.1	5.8
14.0	3.1	1.4	17.4	5.9	2.1	22.4	11.6	5.1	23.3	12.8	6.0
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.0	4.3	17.8	11.0	5.1
12.6	3.0	1.4	15.6	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.7
15.2	3.1	1.4	19.1	6.0	2.1	24.8	12.1	5.4	25.9	13.4	6.2
11.3	2.9	1.4	13.8	5.4	2.0	17.4	10.1	4.3	18.0	11.0	5.1
13.8	3.0	1.4	17.3	5.8	2.1	22.4	11.5	5.0	23.4	12.7	5.9
14.3	3.0	1.4	18.1	5.9	2.1	23.5	11.7	5.0	24.5	12.9	6.0
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
12.4	3.0	1.4	15.2	5.6	2.1	19.4	10.7	4.7	20.2	11.8	5.7
14.6	3.1	1.4	18.3	5.9	2.1	23.7	11.8	5.2	24.7	13.1	6.1
11.3	2.9	1.4	13.9	5.4	2.0	17.5	10.2	4.4	18.1	11.1	5.2
12.5	3.0	1.4	15.3	5.6	2.1	19.5	10.8	4.7	20.3	11.9	5.7
15.0	3.1	1.4	19.0	5.9	2.1	24.7	12.0	5.3	25.8	13.3	6.1

FLIGHT ALTITUDE = 10,000 FT. COMBINATION: A

SIGMAP = 2.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
15.2	3.5	0.0	19.0	5.2	2.5	24.9	11.9	4.4	26.0	13.2	4.8
11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
15.1	3.5	0.0	19.0	5.2	2.5	24.8	11.9	4.3	25.9	13.1	4.8
14.4	3.5	0.0	18.0	5.1	2.5	23.5	11.7	4.3	24.5	12.8	4.7
14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.8	4.7
14.2	3.5	0.0	17.7	5.1	2.5	22.9	11.6	4.3	23.9	12.7	4.7
14.1	3.5	0.0	17.6	5.1	2.5	22.7	11.5	4.3	23.7	12.7	4.7
11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
13.9	3.5	0.0	17.3	5.1	2.5	22.3	11.4	4.3	23.3	12.6	4.6
14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.7
15.5	3.5	0.0	19.5	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.7	4.3	24.3	12.9	4.7
16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.2	4.4	27.7	13.6	4.9
16.9	3.5	0.0	21.6	5.3	2.5	28.8	12.5	4.5	30.1	14.0	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
14.0	3.5	0.0	17.4	5.1	2.5	22.3	11.5	4.3	23.2	12.7	4.7
14.2	3.5	0.0	17.6	5.1	2.5	22.7	11.6	4.3	23.7	12.7	4.7
15.2	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
15.4	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.5	13.4	4.8
14.4	3.5	0.0	18.0	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
12.7	3.4	0.0	15.7	5.0	2.5	19.9	10.7	4.2	20.7	12.0	4.5
15.3	3.5	0.0	19.2	5.2	2.5	25.2	12.0	4.4	26.3	13.3	4.8
15.2	3.5	0.0	19.1	5.2	2.5	25.0	11.9	4.3	26.1	13.2	4.8
14.1	3.5	0.0	17.6	5.1	2.5	22.6	11.6	4.3	23.6	12.7	4.7
13.5	3.5	0.0	16.7	5.1	2.5	21.3	11.2	4.3	22.2	12.4	4.6
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.0	12.5	4.6
12.2	3.4	0.0	15.2	5.0	2.4	19.1	10.5	4.1	19.8	11.7	4.5
13.4	3.5	0.0	16.6	5.1	2.5	21.2	11.1	4.2	22.0	12.3	4.6
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.2	13.0	4.7
17.1	3.6	0.0	21.8	5.4	2.5	28.7	12.6	4.5	30.0	14.1	5.0
15.3	3.5	0.0	19.1	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
17.2	3.5	0.0	22.0	5.4	2.5	29.1	12.7	4.5	30.5	14.1	5.0
17.9	3.6	0.0	23.3	5.4	2.5	31.3	12.8	4.5	32.8	14.4	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
15.0	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.1	13.1	4.8
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.0	13.1	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
17.2	3.6	0.0	21.8	5.4	2.5	28.8	12.6	4.5	30.1	14.1	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
17.0	3.5	0.0	21.5	5.3	2.5	28.4	12.6	4.5	29.7	14.0	5.0
17.8	3.6	0.0	22.9	5.4	2.5	30.6	12.8	4.5	32.1	14.4	5.0
17.1	3.5	0.0	21.7	5.4	2.5	28.7	12.6	4.5	30.1	14.1	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.9
16.9	3.5	0.0	21.5	5.3	2.5	28.4	12.6	4.5	29.7	14.0	5.0
16.3	3.5	0.0	20.8	5.3	2.5	27.4	12.4	4.5	28.6	13.8	4.9
16.6	3.5	0.0	21.0	5.3	2.5	27.6	12.5	4.5	28.8	13.9	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	27.0	13.5	4.9
16.0	3.5	0.0	20.1	5.3	2.5	26.3	12.3	4.4	27.4	13.6	4.9
17.7	3.6	0.0	22.9	5.4	2.5	30.7	12.8	4.5	32.2	14.3	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
15.9	3.5	0.0	20.0	5.3	2.5	26.1	12.2	4.4	27.3	13.6	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.7	4.9
15.3	3.5	0.0	19.0	5.2	2.5	24.7	12.0	4.4	25.8	13.3	4.8
15.7	3.5	0.0	19.6	5.3	2.5	25.6	12.2	4.4	26.7	13.5	4.9
14.6	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.6	13.0	4.7
14.6	3.5	0.0	18.1	5.2	2.5	23.4	11.8	4.4	24.4	13.0	4.8
16.2	3.5	0.0	20.6	5.3	2.5	27.3	12.3	4.4	28.5	13.7	4.9
15.4	3.5	0.0	19.3	5.2	2.5	25.1	12.1	4.4	26.2	13.3	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.2	12.1	4.4	26.3	13.4	4.8
14.4	3.5	0.0	17.8	5.2	2.5	23.0	11.7	4.3	24.0	12.8	4.7
15.2	3.5	0.0	19.1	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.6	13.2	4.8
15.0	3.5	0.0	18.7	5.2	2.5	24.3	11.9	4.4	25.3	13.1	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
14.8	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.4	25.0	13.1	4.8
17.3	3.5	0.0	22.3	5.4	2.5	29.7	12.7	4.5	31.1	14.2	5.0
17.8	3.6	0.0	23.1	5.4	2.5	31.2	12.8	4.5	32.7	14.4	5.0
15.7	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.0	13.5	4.9
16.9	3.5	0.0	21.6	5.3	2.5	28.6	12.5	4.5	30.0	14.0	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.3	11.9	4.4	25.3	13.2	4.8
15.6	3.5	0.0	19.6	5.3	2.5	25.7	12.1	4.4	26.8	13.4	4.8
14.6	3.5	0.0	18.2	5.2	2.5	23.5	11.8	4.3	24.5	13.0	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.1	13.1	4.8

FLIGHT ALTITUDE = 10,000 FT. COMBINATION:B

SIGMAP = 2.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
15.7	3.5	0.0	19.8	5.2	2.5	26.1	12.1	4.4	27.2	13.5	4.8
11.4	3.4	0.0	14.0	4.9	2.4	17.5	9.9	4.1	18.2	11.0	4.3
14.9	3.5	0.0	18.7	5.2	2.5	24.5	11.8	4.3	25.5	13.1	4.7
14.2	3.5	0.0	17.8	5.1	2.5	23.1	11.6	4.3	24.1	12.7	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.2	11.6	4.3	24.2	12.8	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.2	11.7	4.3	24.2	12.8	4.7
14.6	3.5	0.0	18.2	5.2	2.5	23.7	11.7	4.3	24.8	12.9	4.7
11.5	3.4	0.0	14.2	4.9	2.4	17.8	10.0	4.1	18.4	11.1	4.4
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.3	4.3	23.0	12.5	4.6
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.2	13.0	4.7
15.9	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.2	13.5	4.9
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
15.9	3.5	0.0	20.0	5.3	2.5	26.3	12.2	4.4	27.4	13.5	4.9
16.7	3.5	0.0	21.4	5.3	2.5	28.5	12.5	4.5	29.8	13.9	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.3	3.5	0.0	19.1	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
14.4	3.5	0.0	17.8	5.2	2.5	22.9	11.7	4.3	23.9	12.8	4.7
14.1	3.5	0.0	17.6	5.1	2.5	22.6	11.6	4.3	23.6	12.7	4.7
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.6	13.2	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.4	12.1	4.4	26.2	13.4	4.8
14.9	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.1	4.8
12.4	3.4	0.0	15.4	5.0	2.4	19.4	10.6	4.2	20.2	11.8	4.5
15.1	3.5	0.0	19.0	5.2	2.5	24.8	11.9	4.4	25.9	13.2	4.8
15.0	3.5	0.0	18.9	5.2	2.5	24.7	11.9	4.3	25.8	13.1	4.7
14.0	3.5	0.0	17.5	5.1	2.5	22.5	11.5	4.3	23.4	12.7	4.7
13.6	3.5	0.0	16.9	5.1	2.5	21.6	11.3	4.3	22.5	12.5	4.6
14.2	3.5	0.0	17.6	5.1	2.5	22.7	11.6	4.3	23.7	12.7	4.7
12.0	3.4	0.0	14.9	5.0	2.4	18.7	10.3	4.1	19.4	11.6	4.4
13.2	3.5	0.0	16.4	5.1	2.5	20.9	11.1	4.2	21.8	12.3	4.6
14.9	3.5	0.0	18.6	5.2	2.5	24.3	11.8	4.3	25.3	13.1	4.7
17.5	3.6	0.0	22.3	5.4	2.5	29.4	12.8	4.5	30.8	14.3	5.0
15.0	3.5	0.0	18.7	5.2	2.5	24.4	11.9	4.4	25.4	13.2	4.8
17.1	3.5	0.0	21.7	5.3	2.5	28.7	12.6	4.5	30.1	14.1	5.0
17.8	3.6	0.0	23.1	5.4	2.5	31.0	12.8	4.5	32.5	14.4	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.8	4.9
16.6	3.5	0.0	20.9	5.3	2.5	27.5	12.5	4.5	28.7	13.9	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.7	12.0	4.4	25.8	13.3	4.8
14.7	3.5	0.0	18.3	5.2	2.5	23.7	11.8	4.4	24.7	13.0	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.5	12.3	4.4	27.7	13.7	4.9
16.7	3.5	0.0	21.2	5.3	2.5	27.9	12.5	4.5	29.1	13.9	4.9
17.4	3.6	0.0	22.2	5.4	2.5	29.4	12.7	4.5	30.8	14.3	5.0
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
17.7	3.6	0.0	22.7	5.4	2.5	30.4	12.8	4.5	31.9	14.3	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
17.2	3.6	0.0	21.9	5.4	2.5	28.9	12.7	4.5	30.2	14.1	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
16.6	3.5	0.0	21.9	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.3	12.6	4.5	29.5	14.0	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.4	14.0	5.0
15.5	3.5	0.0	19.4	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
15.9	3.5	0.0	20.0	5.3	2.5	26.1	12.2	4.4	27.2	13.6	4.9
17.6	3.6	0.0	22.7	5.4	2.5	30.5	12.8	4.5	31.9	14.3	5.0
16.4	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
15.2	3.5	0.0	19.0	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.8	12.3	4.4	27.9	13.7	4.9
15.2	3.5	0.0	19.0	5.2	2.5	24.6	12.0	4.4	25.7	13.3	4.8
16.0	3.5	0.0	20.1	5.3	2.5	26.3	12.3	4.4	27.4	13.6	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.8	4.7
14.5	3.5	0.0	18.0	5.2	2.5	23.2	11.8	4.3	24.2	12.9	4.7
16.2	3.5	0.0	20.5	5.3	2.5	27.1	12.3	4.4	28.3	13.7	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.2	12.1	4.4	26.3	13.4	4.8
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.1	4.4	26.2	13.3	4.8
14.3	3.5	0.0	17.8	5.2	2.5	23.0	11.7	4.3	24.0	12.8	4.7
15.1	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.7	13.2	4.8
15.2	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
14.5	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.9	4.7
17.2	3.5	0.0	22.0	5.3	2.5	29.3	12.6	4.5	30.7	14.1	5.0
17.7	3.5	0.0	23.0	5.4	2.5	31.0	12.8	4.5	32.5	14.3	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.2	4.8
16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.3	4.4	27.7	13.6	4.9
14.6	3.5	0.0	18.1	5.2	2.5	23.5	11.8	4.3	24.5	12.9	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.1	13.1	4.8
17.0	3.5	0.0	21.7	5.3	2.5	28.8	12.6	4.5	30.2	14.0	4.9

FLIGHT ALTITUDE = 10,000 FT. COMBINATION: C

SIGMAP = 2.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
16.7	3.5	0.0	21.3	5.3	2.5	28.2	12.5	4.5	29.5	13.9	4.9
10.9	3.3	0.0	13.2	4.8	2.4	16.5	9.5	4.0	17.1	10.5	4.3
14.5	3.5	0.0	18.2	5.2	2.5	23.7	11.7	4.3	24.7	12.9	4.7
13.9	3.5	0.0	17.4	5.1	2.5	22.4	11.4	4.3	23.4	12.6	4.6
14.1	3.5	0.0	17.6	5.1	2.5	22.8	11.5	4.3	23.7	12.7	4.7
14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.8	4.7
15.5	3.5	0.0	19.6	5.2	2.5	25.7	12.1	4.4	26.9	13.4	4.8
11.1	3.3	0.0	13.6	4.8	2.4	16.9	9.7	4.0	17.5	10.8	4.3
13.4	3.5	0.0	16.7	5.1	2.5	21.5	11.2	4.2	22.3	12.3	4.6
14.8	3.5	0.0	18.6	5.2	2.5	24.3	11.8	4.3	25.3	13.0	4.7
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
13.6	3.5	0.0	16.9	5.1	2.5	21.6	11.3	4.3	22.5	12.4	4.6
15.6	3.5	0.0	19.6	5.2	2.5	25.7	12.1	4.4	26.8	13.4	4.8
16.5	3.5	0.0	21.0	5.3	2.5	27.9	12.4	4.4	29.1	13.8	4.9
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
15.2	3.5	0.0	19.0	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
15.0	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.2	4.8
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.5	4.3	23.1	12.6	4.7
14.7	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.9	13.0	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.4	12.1	4.4	26.5	13.4	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.8
11.8	3.4	0.0	14.6	4.9	2.4	18.4	10.2	4.1	19.1	11.4	4.4
14.7	3.5	0.0	18.4	5.2	2.5	24.1	11.8	4.3	25.1	13.0	4.7
14.6	3.5	0.0	18.3	5.2	2.5	23.9	11.7	4.3	24.9	12.9	4.7
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.4	4.3	23.1	12.6	4.7
13.8	3.5	0.0	17.1	5.1	2.5	22.0	11.4	4.3	22.9	12.6	4.7
14.8	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.8
11.5	3.4	0.0	14.2	4.9	2.4	17.7	10.0	4.1	18.4	11.1	4.4
12.9	3.4	0.0	16.0	5.0	2.5	20.4	10.9	4.2	21.2	12.1	4.6
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.2	13.0	4.7
18.1	3.6	0.0	23.2	5.4	2.6	30.8	12.9	4.6	32.2	14.5	5.1
14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.7	4.3	24.3	12.9	4.7
16.7	3.5	0.0	21.2	5.3	2.5	28.0	12.5	4.5	29.2	13.9	4.9
17.6	3.5	0.0	22.6	5.4	2.5	30.3	12.7	4.5	31.8	14.3	5.0
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
16.6	3.5	0.0	20.9	5.3	2.5	27.5	12.5	4.5	28.7	13.9	4.9
15.9	3.5	0.0	19.9	5.3	2.5	25.9	12.3	4.4	27.1	13.6	4.9
14.3	3.5	0.0	17.8	5.2	2.5	22.9	11.7	4.3	23.9	12.8	4.7
15.8	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.1	13.5	4.9
16.7	3.5	0.0	21.2	5.3	2.5	27.9	12.5	4.5	29.1	13.9	4.9
17.9	3.6	0.0	22.9	5.4	2.6	30.5	12.9	4.5	31.9	14.4	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	27.0	13.5	4.9
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
17.4	3.5	0.0	22.4	5.4	2.5	29.8	12.7	4.5	31.3	14.2	5.0
17.3	3.6	0.0	22.1	5.4	2.5	29.2	12.7	4.5	30.6	14.2	5.0
16.7	3.5	0.0	21.2	5.3	2.5	27.9	12.5	4.5	29.1	13.9	4.9
17.1	3.6	0.0	21.8	5.4	2.5	28.8	12.6	4.5	30.1	14.1	5.0
15.5	3.5	0.0	19.4	5.2	2.5	25.2	12.1	4.4	26.3	13.4	4.8
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.1	13.9	4.9
16.2	3.5	0.0	20.4	5.3	2.5	26.8	12.3	4.4	27.9	13.7	4.9
17.3	3.6	0.0	22.1	5.4	2.5	29.2	12.7	4.5	30.6	14.2	5.0
15.0	3.5	0.0	18.7	5.2	2.5	24.3	11.9	4.4	25.4	13.1	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
17.4	3.5	0.0	22.3	5.4	2.4	29.8	12.7	4.5	31.3	14.2	5.0
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.7	13.8	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.1	4.8
15.9	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.3	13.6	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.2	4.8
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
13.8	3.5	0.0	17.1	5.1	2.5	22.0	11.4	4.3	22.9	12.5	4.7
14.3	3.5	0.0	17.7	5.2	2.5	22.7	11.7	4.3	23.7	12.8	4.7
16.0	3.5	0.0	20.2	5.3	2.5	26.6	12.2	4.4	27.8	13.6	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.7	13.7	4.9
14.1	3.5	0.0	17.6	5.1	2.5	22.6	11.6	4.3	23.6	12.7	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.1	11.9	4.4	25.1	13.1	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.6	13.2	4.8
16.9	3.5	0.0	21.4	5.3	2.5	28.3	12.6	4.5	29.5	14.0	5.0
13.9	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.0	12.6	4.7
16.8	3.5	0.0	21.5	5.3	2.5	28.5	12.5	4.5	29.9	14.0	4.9
17.5	3.5	0.0	22.6	5.4	2.5	30.4	12.7	4.5	31.9	14.2	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
14.8	3.5	0.0	18.4	5.2	2.5	23.8	11.9	4.4	24.9	13.1	4.8
16.8	3.5	0.0	21.3	5.3	2.5	28.1	12.5	4.5	29.4	14.0	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
14.6	3.5	0.0	18.2	5.2	2.5	23.5	11.8	4.3	24.5	13.0	4.8
17.0	3.5	0.0	21.7	5.3	2.5	28.9	12.6	4.5	30.3	14.0	5.0

FLIGHT ALTITUDE = 10,000 FT. COMBINATION: D

SIGMAP = 1.5 SIGMAT = 1.0 SIGMARH 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
15.1	3.5	0.0	18.9	5.2	2.5	24.7	11.9	4.4	25.8	13.1	4.8
11.6	3.4	0.0	14.4	4.9	2.4	18.1	10.1	4.1	18.8	11.3	4.4
15.0	3.5	0.0	18.8	5.2	2.5	24.6	11.9	4.3	25.6	13.1	4.7
14.5	3.5	0.0	18.1	5.1	2.5	23.6	11.7	4.3	24.6	12.9	4.7
14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.5	12.8	4.7
14.1	3.5	0.0	17.6	5.1	2.5	22.8	11.6	4.3	23.8	12.7	4.7
14.0	3.5	0.0	17.5	5.1	2.5	22.6	11.5	4.3	23.6	12.6	4.6
11.7	3.4	0.0	14.5	4.9	2.0	18.2	10.1	4.1	18.9	11.3	4.4
13.9	3.5	0.0	17.3	5.1	2.5	22.3	11.4	4.3	23.2	12.6	4.6
14.5	3.5	0.0	18.2	5.2	2.5	23.7	11.7	4.3	24.7	12.9	4.7
15.5	3.5	0.0	19.4	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
14.5	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.9	4.7
16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.2	4.4	27.7	13.6	4.9
16.9	3.5	0.0	21.6	5.3	2.5	28.9	12.5	4.5	30.2	14.0	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.3	12.1	4.4	26.4	13.3	4.8
15.2	3.5	0.0	19.1	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
14.1	3.5	0.0	17.4	5.1	2.5	22.4	11.6	4.3	23.3	12.7	4.7
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
15.2	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
14.3	3.5	0.0	17.8	5.2	2.5	23.0	11.7	4.3	24.0	12.8	4.7
12.7	3.4	0.0	15.8	5.0	2.5	20.0	10.8	4.2	20.8	12.0	4.5
15.2	3.5	0.0	19.1	5.2	2.5	24.9	11.9	4.4	26.0	13.2	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.2	12.0	4.4	26.4	13.2	4.8
14.2	3.5	0.0	17.6	5.1	2.5	22.8	11.6	4.3	23.7	12.7	4.7
13.4	3.5	0.0	16.7	5.1	2.5	21.2	11.2	4.3	22.1	12.4	4.6
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.1	12.6	4.6
12.3	3.4	0.0	15.3	5.0	2.4	19.2	10.5	4.2	20.0	11.7	4.5
13.4	3.5	0.0	16.6	5.1	2.5	21.2	11.1	4.2	22.1	12.3	4.6
14.7	3.5	0.0	18.3	5.2	2.5	23.9	11.8	4.3	24.9	13.0	4.7
17.1	3.1	0.0	21.6	5.4	2.5	28.5	12.6	4.5	29.8	14.1	5.0
15.3	3.5	0.0	19.1	5.2	2.5	24.5	12.0	4.4	26.0	13.3	4.8
17.1	3.5	0.0	21.8	5.3	2.5	28.9	12.6	4.5	30.2	14.1	5.0
18.0	3.6	0.0	23.4	5.4	2.5	31.4	12.9	4.5	32.9	14.4	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.3	13.8	4.9
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.0	13.1	4.8
14.9	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.1	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.7	12.3	4.4	27.8	13.7	4.9
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.7	13.8	4.9
17.1	3.5	0.0	21.7	5.4	2.5	28.7	12.6	4.5	30.0	14.1	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.9	3.5	0.0	21.5	5.3	2.5	28.3	12.6	4.5	29.6	14.0	5.0
17.8	3.6	0.0	23.0	5.4	2.5	30.7	12.8	4.5	32.2	14.4	5.0
17.1	3.5	0.0	21.8	5.4	2.5	28.8	12.6	4.5	30.1	14.1	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.4	14.0	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.8	4.9
15.8	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.1	13.5	4.9
16.9	3.5	0.0	21.5	5.3	2.5	28.4	12.6	4.5	29.6	14.0	5.0
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.7	13.9	4.9
15.8	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.0	13.5	4.9
16.0	3.5	0.0	20.0	5.3	2.5	26.2	12.3	4.4	27.3	13.6	4.9
15.2	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.3	4.8
17.8	3.6	0.0	23.0	5.4	2.5	30.8	12.8	4.5	32.3	14.4	5.0
16.4	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
15.8	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.2	13.5	4.9
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
16.3	3.5	0.0	20.5	5.3	2.5	27.0	12.4	4.5	28.2	13.7	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
14.6	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.7	13.0	4.7
14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.8	4.3	24.3	12.9	4.8
16.3	3.5	0.0	20.7	5.3	2.5	27.4	12.3	4.4	28.6	13.7	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.1	4.4	26.2	13.3	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.4	13.4	4.8
15.0	3.5	0.0	18.7	5.2	2.5	24.4	11.9	4.4	25.4	13.1	4.8
14.4	3.5	0.0	17.9	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
15.2	3.5	0.0	19.0	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.6	13.2	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.8	12.3	4.4	28.0	13.7	4.9
14.8	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.1	13.1	4.8
17.3	3.5	0.0	22.1	5.3	2.5	29.5	12.6	4.5	30.9	14.1	5.0
17.9	3.6	0.0	23.2	5.4	2.5	31.3	12.8	4.5	32.8	14.4	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	27.0	13.5	4.9
15.1	3.5	0.0	18.8	5.2	2.5	24.4	12.0	4.4	25.4	13.2	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.1	4.4	26.9	13.5	4.8
14.7	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.6	13.0	4.7
15.0	3.5	0.0	18.6	5.2	2.5	24.2	11.9	4.4	25.2	13.1	4.8
16.9	3.5	0.0	21.5	5.3	2.5	28.6	12.5	4.5	29.9	14.0	4.9

FLIGHT ALTITUOE = 10,000 FT. COMBINATION: E

SIGMAP = 1.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
15.6	3.5	0.0	19.7	5.2	2.5	25.8	12.1	4.4	27.0	13.4	4.8
11.4	3.4	0.0	14.1	4.9	2.4	17.6	10.0	4.1	18.3	11.1	4.4
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.3	13.0	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.3	11.6	4.3	24.3	12.8	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.3	11.6	4.3	24.3	12.8	4.7
14.3	3.5	0.0	17.8	5.1	2.5	23.1	11.6	4.3	24.1	12.8	4.7
14.5	3.5	0.0	18.2	5.2	2.5	23.6	11.7	4.3	24.7	12.9	4.7
11.5	3.4	0.0	14.3	4.9	2.4	17.9	10.0	4.1	18.6	11.2	4.4
13.7	3.5	0.0	17.1	5.1	2.5	22.0	11.3	4.3	23.0	12.5	4.6
14.6	3.5	0.0	18.3	5.2	2.5	23.9	11.8	4.3	25.0	12.9	4.7
15.8	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.2	13.5	4.9
14.3	3.5	0.0	17.7	5.2	2.5	22.9	11.6	4.3	23.8	12.8	4.7
15.9	3.5	0.0	20.0	5.3	2.5	26.3	12.2	4.4	27.4	13.5	4.9
16.8	3.5	0.0	21.5	5.3	2.5	28.6	12.5	4.5	29.9	13.9	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
14.4	3.5	0.0	17.9	5.2	2.5	23.0	11.7	4.3	24.0	12.9	4.7
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
15.0	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.4	12.1	4.4	26.5	13.4	4.8
14.8	3.5	0.0	18.4	5.2	2.5	23.9	11.8	4.4	25.0	13.0	4.8
12.5	3.4	0.0	15.5	5.0	2.4	19.6	10.6	4.2	20.3	11.8	4.5
15.0	3.5	0.0	18.8	5.2	2.5	24.6	11.9	4.3	25.7	13.1	4.8
15.1	3.5	0.0	19.0	5.2	2.5	24.9	11.9	4.3	26.0	13.2	4.8
14.1	3.5	0.0	17.5	5.1	2.5	22.6	11.5	4.3	23.6	12.7	4.7
13.6	3.5	0.0	16.9	5.1	2.5	21.5	11.3	4.3	22.4	12.4	4.6
14.3	3.5	0.0	17.7	5.1	2.5	22.9	11.6	4.3	23.9	12.8	4.7
12.1	3.4	0.0	15.0	5.0	2.4	18.9	10.4	4.1	19.6	11.6	4.4
13.3	3.5	0.0	16.5	5.1	2.5	21.0	11.1	4.2	21.8	12.3	4.6
14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.7
17.4	3.6	0.0	22.2	5.4	2.5	29.2	12.7	4.5	30.6	14.2	5.0
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
17.0	3.5	0.0	21.6	5.3	2.5	28.5	12.6	4.5	29.8	14.0	5.0
17.9	3.6	0.0	23.2	5.4	2.5	31.2	12.8	4.5	32.7	14.4	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.8	4.9
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
15.3	3.5	0.0	19.0	5.2	2.5	24.7	12.0	4.4	25.7	13.3	4.8
14.8	3.5	0.0	18.4	5.2	2.5	23.9	11.8	4.4	24.9	13.1	4.8
16.1	3.5	0.0	20.2	5.3	2.5	26.5	12.3	4.4	27.7	13.6	4.9
16.6	3.5	0.0	21.0	5.3	2.5	27.6	12.5	4.5	28.9	13.9	4.9
17.4	3.6	0.0	22.2	5.4	2.5	29.4	12.7	4.5	30.8	14.3	5.0
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
17.7	3.6	0.0	22.7	5.4	2.5	30.4	12.8	4.5	31.9	14.3	5.0
17.2	3.6	0.0	21.9	5.4	2.5	28.9	12.7	4.5	30.2	14.1	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.3	12.6	4.5	29.5	14.0	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.8	3.5	0.0	21.3	5.3	2.5	28.0	12.5	4.5	29.3	14.0	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
15.9	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.1	13.6	4.9
17.7	3.6	0.0	22.8	5.4	2.5	30.6	12.8	4.5	32.0	14.3	5.0
16.5	3.5	0.0	20.8	5.3	2.5	27.4	12.4	4.5	28.6	13.8	4.9
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.1	3.5	0.0	20.3	5.3	2.5	26.7	12.3	4.4	27.8	13.7	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
15.2	3.5	0.0	18.9	5.2	2.5	24.5	12.0	4.4	25.6	13.2	4.8
16.0	3.5	0.0	20.1	5.3	2.5	26.3	12.3	4.4	27.5	13.6	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
16.2	3.5	0.0	20.6	5.3	2.5	27.2	12.3	4.4	28.4	13.7	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.4	13.4	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.2	12.1	4.4	26.3	13.3	4.8
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
15.1	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.7	13.2	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
16.5	3.5	0.0	20.8	5.3	2.5	27.4	12.4	4.5	28.6	13.8	4.9
14.6	3.5	0.0	18.1	5.2	2.5	23.5	11.8	4.3	24.5	12.9	4.7
17.1	3.5	0.0	21.9	5.3	2.5	29.1	12.6	4.5	30.5	14.1	5.0
17.8	3.5	0.0	23.1	5.4	2.5	31.1	12.8	4.5	32.6	14.4	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.8
15.1	3.5	0.0	18.8	5.2	2.5	24.4	12.0	4.4	25.4	13.2	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.7	12.3	4.4	27.8	13.6	4.9
14.6	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.6	13.0	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.0	13.1	4.8
16.9	3.5	0.0	21.6	5.3	2.5	28.7	12.5	4.5	30.1	14.0	4.9

FLIGHT ALTITUDE = 10,000 COMBINATION: F

SIGMAP = 1.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
16.6	3.5	0.0	21.1	5.3	2.5	28.0	12.4	4.4	29.2	13.8	4.9
11.0	3.3	0.0	13.3	4.8	2.4	16.6	9.6	4.0	17.2	10.6	4.3
14.4	3.5	0.0	18.0	5.1	2.5	23.4	11.7	4.3	24.4	12.8	4.7
14.0	3.5	0.0	17.5	5.1	2.5	22.6	11.4	4.3	23.5	12.6	4.6
14.1	3.5	0.0	17.6	5.1	2.5	22.8	11.5	4.3	23.7	12.7	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.2	11.7	4.3	24.2	12.8	4.7
15.5	3.5	0.0	19.5	5.2	2.5	25.6	12.0	4.4	26.7	13.3	4.8
11.2	3.3	0.0	13.7	4.9	2.4	17.1	9.8	4.0	17.8	10.8	4.3
13.4	3.5	0.0	16.7	5.1	2.5	21.4	11.1	4.2	22.3	12.3	4.6
14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.1	13.0	4.7
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
13.6	3.5	0.0	16.9	5.1	2.5	21.7	11.3	4.3	22.6	12.5	4.6
15.6	3.5	0.0	19.6	5.2	2.5	25.7	12.1	4.4	26.8	13.4	4.8
16.5	3.5	0.0	21.1	5.3	2.5	28.0	12.4	4.4	29.3	13.8	4.9
15.4	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.4	13.3	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.2	4.8
14.0	3.5	0.0	17.4	5.1	2.5	22.4	11.5	4.3	23.4	12.7	4.7
14.7	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.9	13.0	4.8
15.6	3.5	0.0	19.6	5.3	2.5	25.6	12.1	4.4	26.7	13.4	4.8
11.9	3.4	0.0	14.7	4.9	2.4	18.5	10.3	4.1	19.2	11.5	4.4
14.6	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.9	12.9	4.7
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.3	13.0	4.7
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.4	4.3	23.2	12.6	4.7
13.8	3.5	0.0	17.1	5.1	2.5	21.9	11.4	4.3	22.8	12.5	4.7
15.0	3.5	0.0	18.7	5.2	2.5	24.4	11.9	4.4	25.5	13.1	4.8
14.6	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.8	12.9	4.7
11.6	3.4	0.0	14.3	4.9	2.4	17.9	10.1	4.1	18.6	11.2	4.4
12.9	3.4	0.0	16.0	5.0	2.5	20.4	10.9	4.2	21.2	12.1	4.6
18.0	3.6	0.0	23.1	5.4	2.6	30.6	12.9	4.5	32.0	14.5	5.1
14.6	3.5	0.0	18.1	5.2	2.5	23.4	11.8	4.3	24.4	12.9	4.7
16.6	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
17.6	3.5	0.0	22.8	5.4	2.5	30.5	12.7	4.5	32.0	14.3	5.0
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.7	13.7	4.9
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
15.9	3.5	0.0	19.9	5.3	2.5	25.9	12.2	4.4	27.0	13.6	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
15.8	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.1	13.5	4.9
16.6	3.5	0.0	21.0	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
17.8	3.6	0.0	22.8	5.4	2.6	30.3	12.9	4.5	31.8	14.4	5.0
15.7	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.0	13.5	4.9
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	29.0	13.9	4.9
17.5	3.6	0.0	22.4	5.4	2.5	30.0	12.7	4.5	31.4	14.3	5.0
17.3	3.6	0.0	22.1	5.4	2.5	29.3	12.7	4.5	30.6	14.2	5.0
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
17.1	3.5	0.0	21.7	5.4	2.5	28.6	12.6	4.5	29.9	14.1	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.1	13.9	4.9
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
17.3	3.6	0.0	22.0	5.4	2.5	29.1	12.7	4.5	30.4	14.2	5.0
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
17.4	3.5	0.0	22.4	5.4	2.5	30.0	12.7	4.5	31.4	14.2	5.0
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.8	13.9	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
15.9	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.3	13.5	4.9
15.0	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.1	4.8
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.3	13.8	4.9
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.0	12.6	4.7
14.2	3.5	0.0	17.6	5.2	2.5	22.6	11.6	4.3	23.6	12.8	4.7
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
16.0	3.5	0.0	20.3	5.3	2.5	26.7	12.2	4.4	27.9	13.6	4.9
15.3	3.5	0.0	19.1	5.2	2.5	25.0	12.0	4.4	26.0	13.3	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.1	11.9	4.4	25.1	13.1	4.8
16.8	3.5	0.0	21.3	5.3	2.5	28.1	12.5	4.5	29.4	14.4	5.0
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.4	4.3	23.1	12.6	4.7
16.7	3.5	0.0	21.3	5.3	2.5	28.3	12.5	4.5	29.6	13.9	4.9
17.6	3.5	0.0	22.7	5.4	2.5	30.5	12.7	4.5	32.0	14.3	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
14.9	3.5	0.0	18.5	5.2	2.5	23.9	11.9	4.4	25.0	13.1	4.8
16.8	3.5	0.0	21.4	5.3	2.5	28.3	12.5	4.5	29.5	14.0	5.0
14.5	3.5	0.0	18.0	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
14.6	3.5	0.0	18.1	5.2	2.5	23.5	11.8	4.3	24.5	13.0	4.8
17.0	3.5	0.0	21.7	5.3	2.5	28.8	12.6	4.5	30.2	14.0	4.9

APPENDIX 9

CORRELATION RESULTS FOR NORMALITY TEST

Correlation(r) Results

a) Height = 1,500 Ft.

Combination	c1	c4	c7	c10
A	0.982	0.983	0.983	0.984
B	0.983	0.982	0.984	0.984
C	0.991	0.991	0.992	0.992
D	0.980	0.979	0.981	0.981
E	0.982	0.982	0.977	0.981
F	0.990	0.991	0.992	0.991

b) Height = 5,000 Ft.

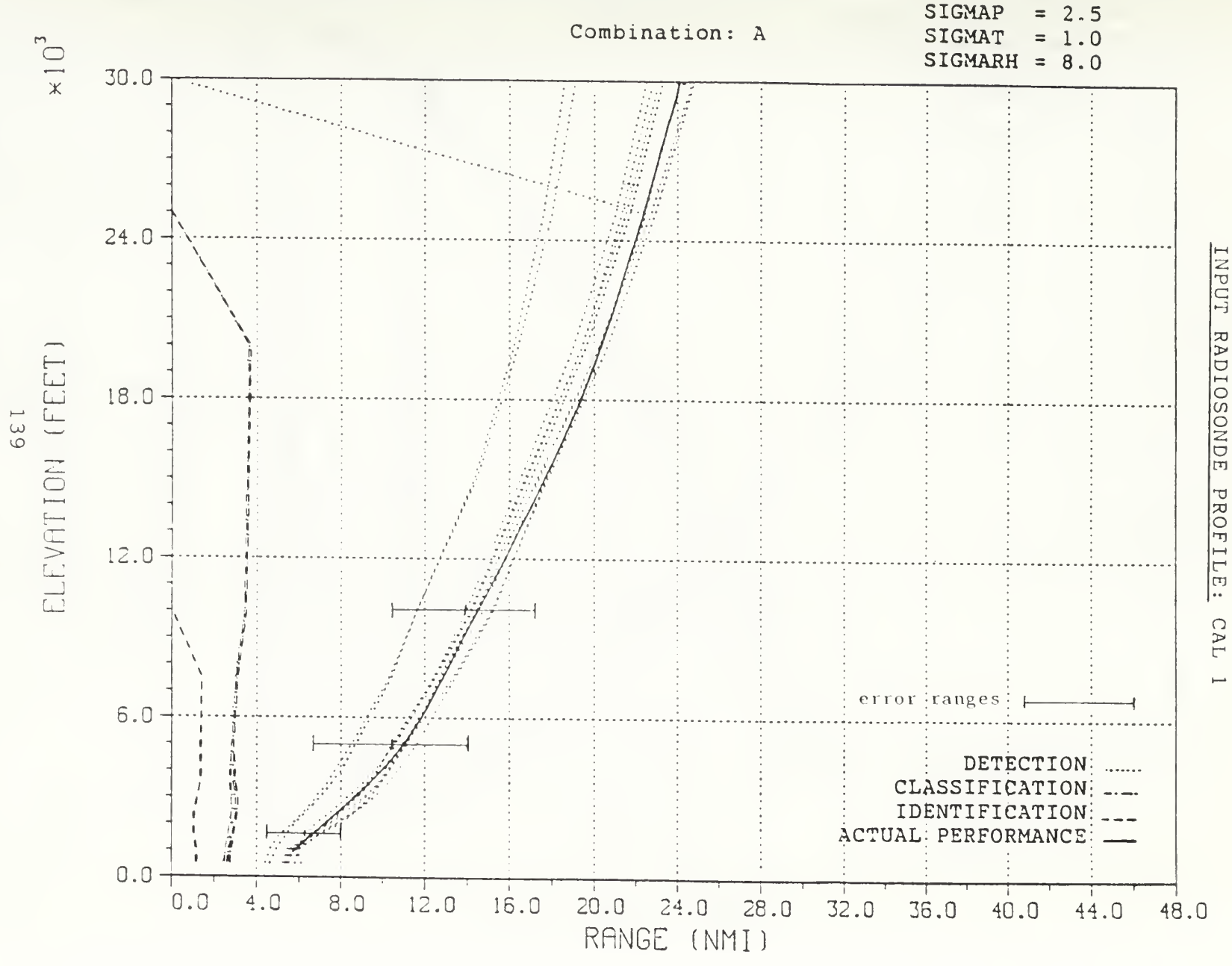
Combination	c1	c4	c7	c10
A	0.987	0.989	0.991	0.991
B	0.987	0.988	0.989	0.989
C	0.989	0.991	0.992	0.992
D	0.989	0.991	0.992	0.992
E	0.989	0.991	0.991	0.991
F	0.989	0.991	0.991	0.991

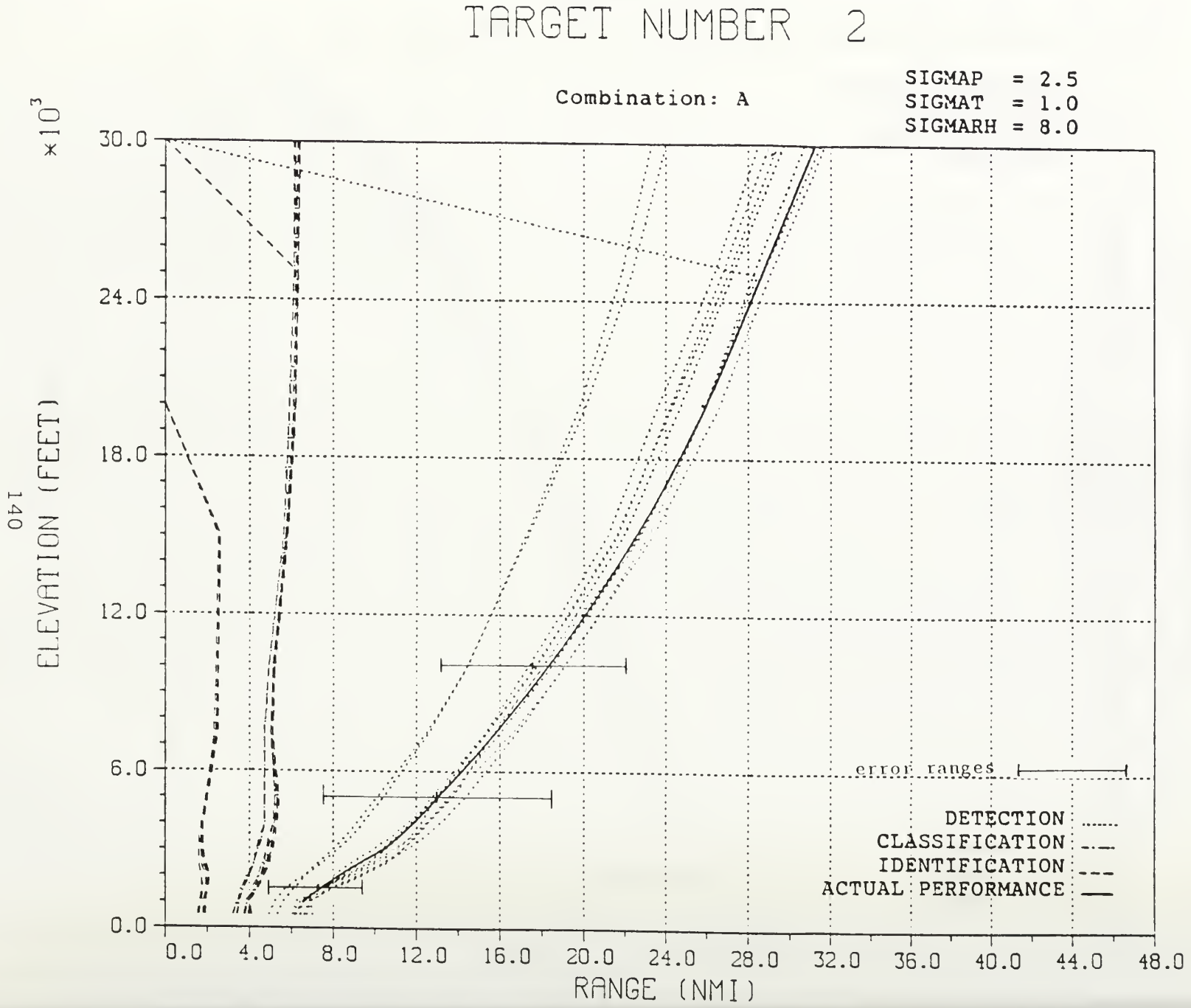
c) Height = 10,000 Ft.

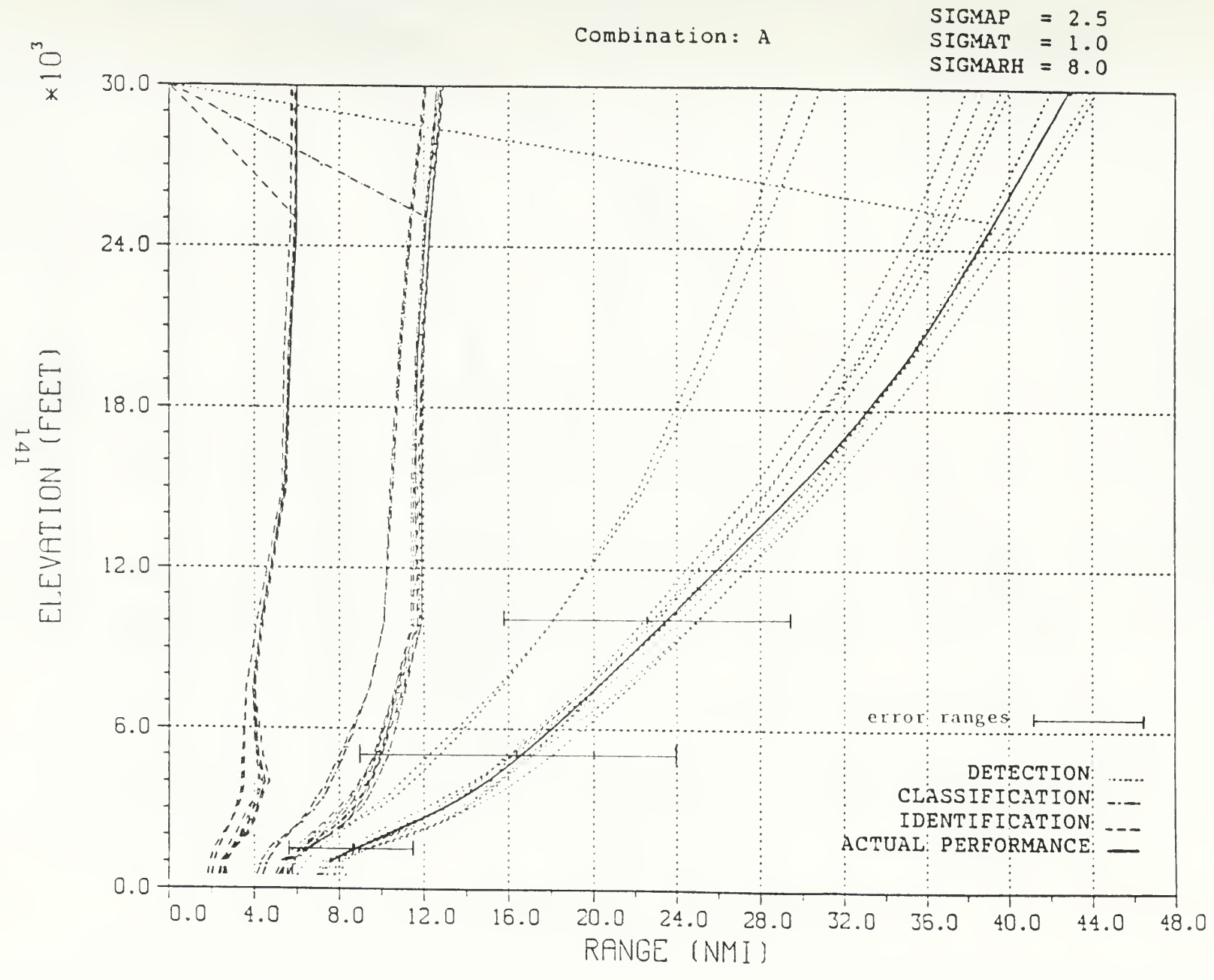
Combination	c1	c4	c7	c10
A	0.985	0.991	0.992	0.991
B	0.981	0.987	0.989	0.988
C	0.987	0.984	0.985	0.985
D	0.978	0.984	0.985	0.985
E	0.982	0.989	0.989	0.989
F	0.982	0.989	0.989	0.988

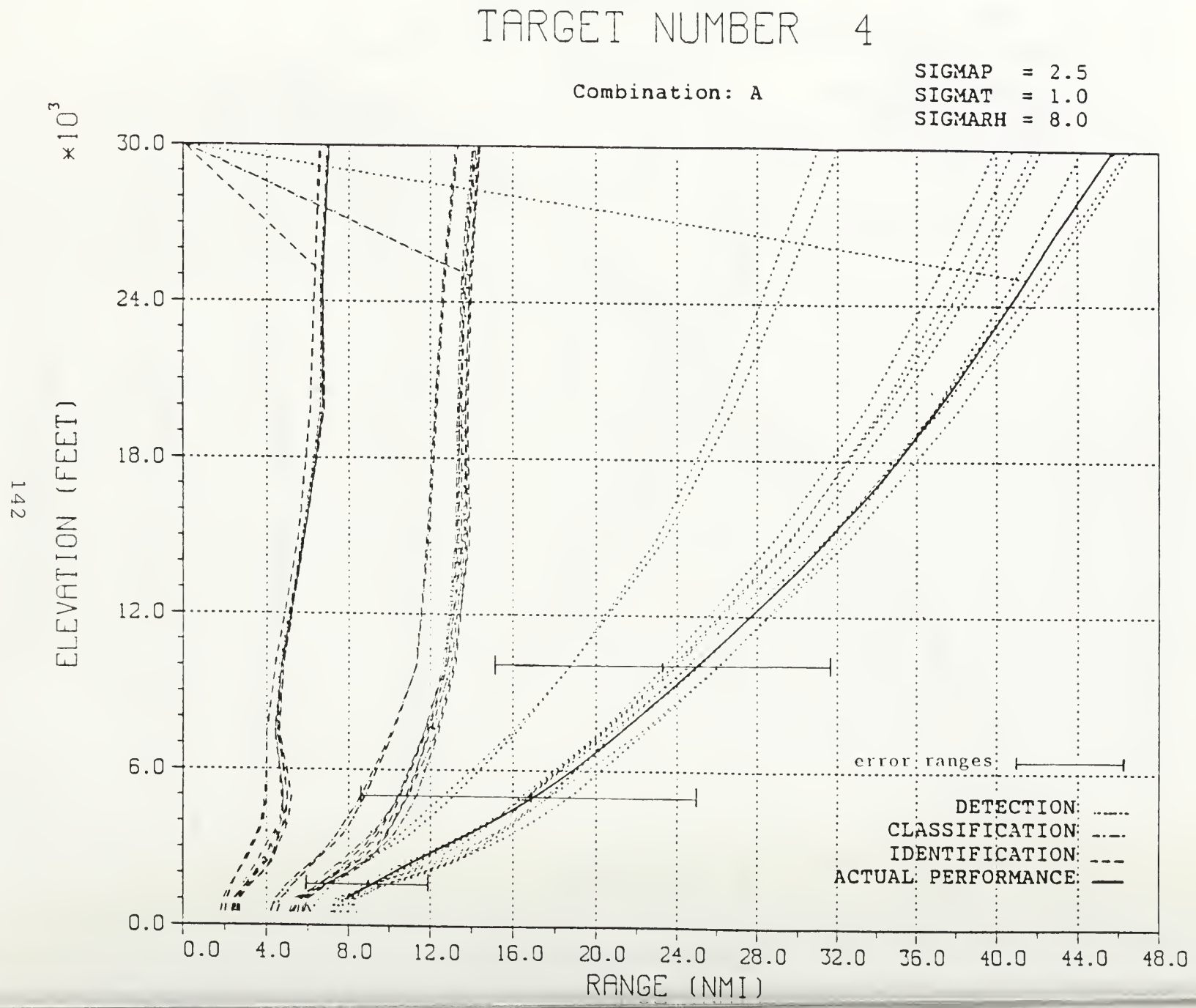
APPENDIX 10

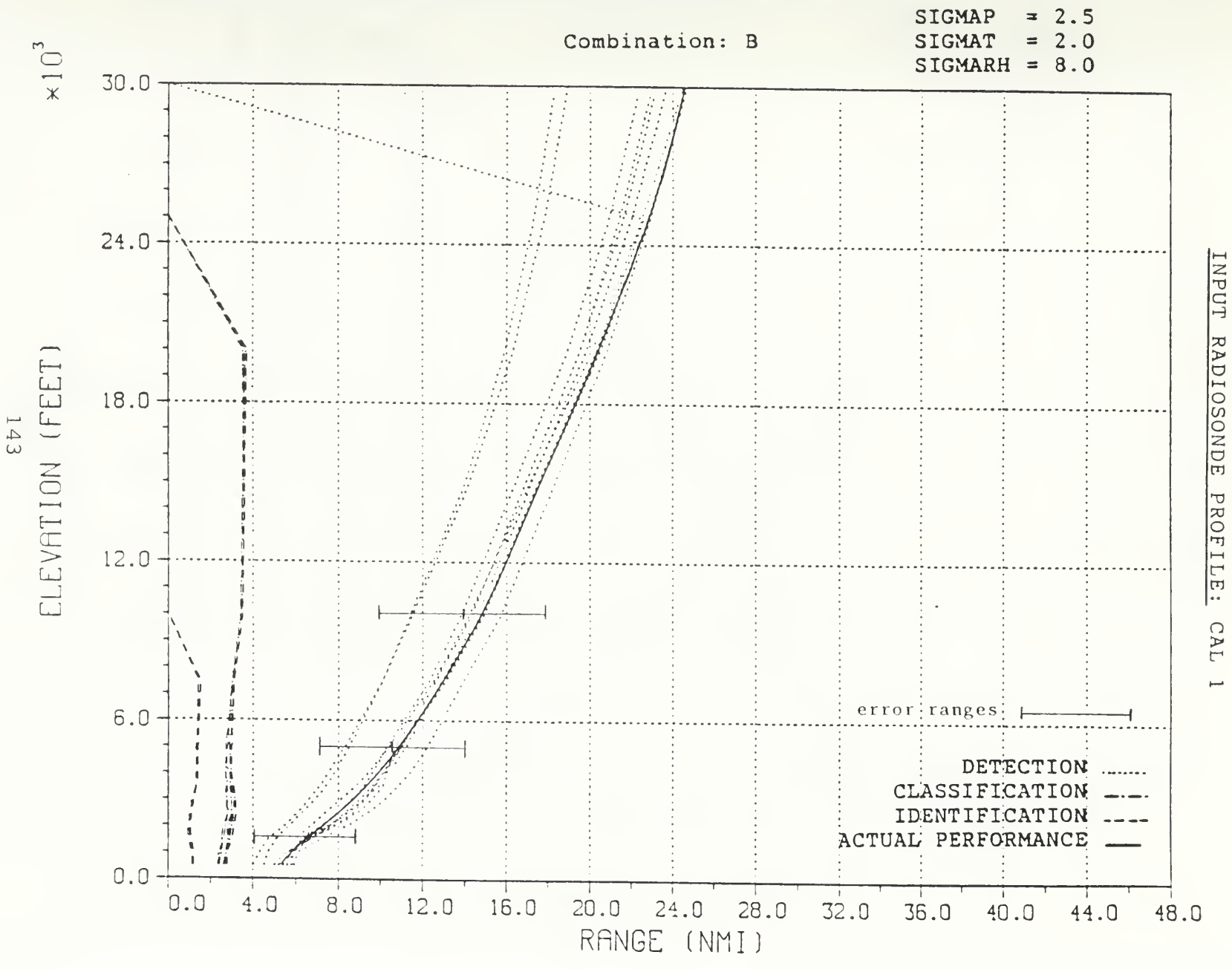
VISUAL DISPLAY OF DITHERED AND UNDITHERED PROFILES PERFORMANCES BY THE PROGRAM UFLR

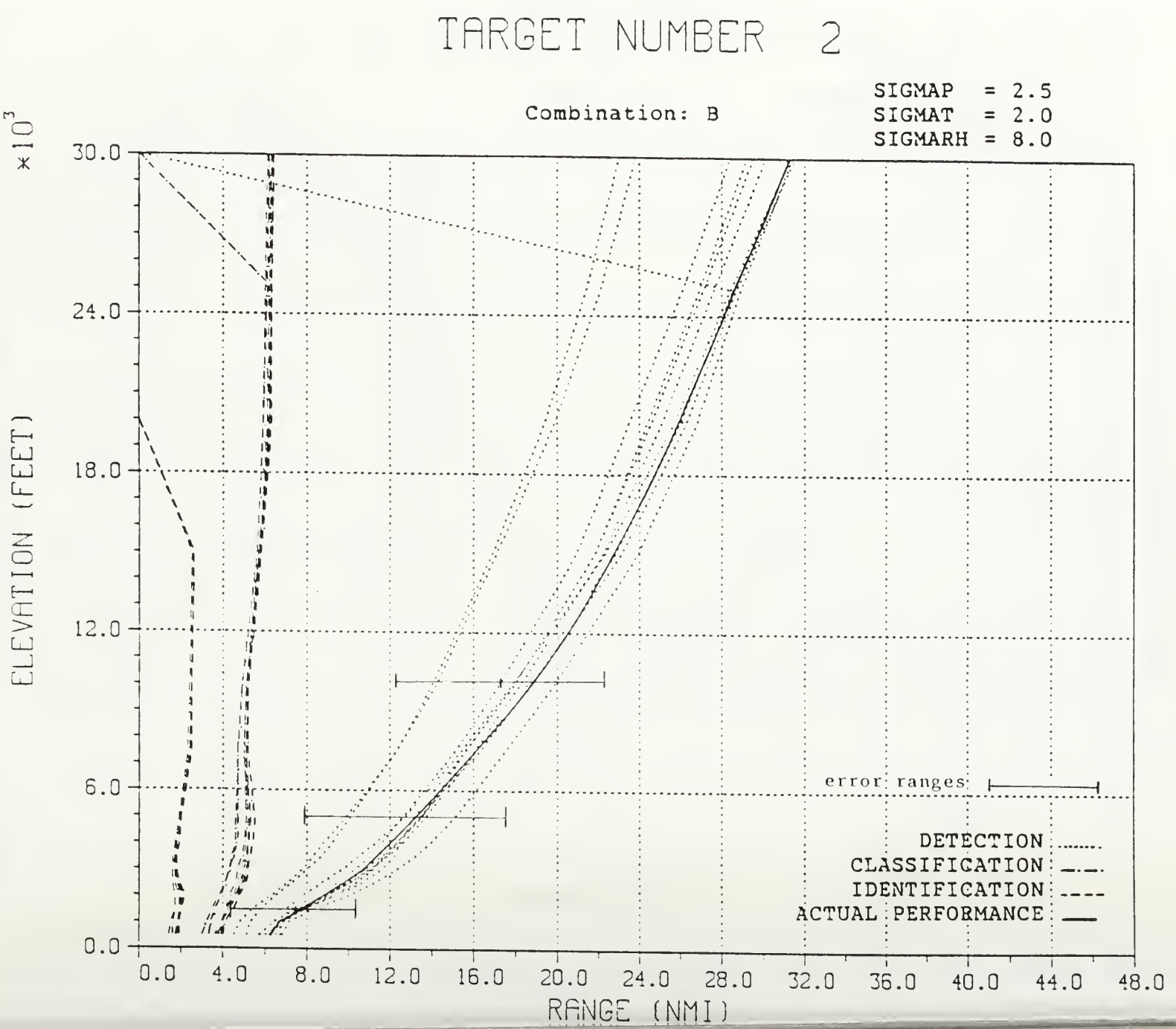

TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 1

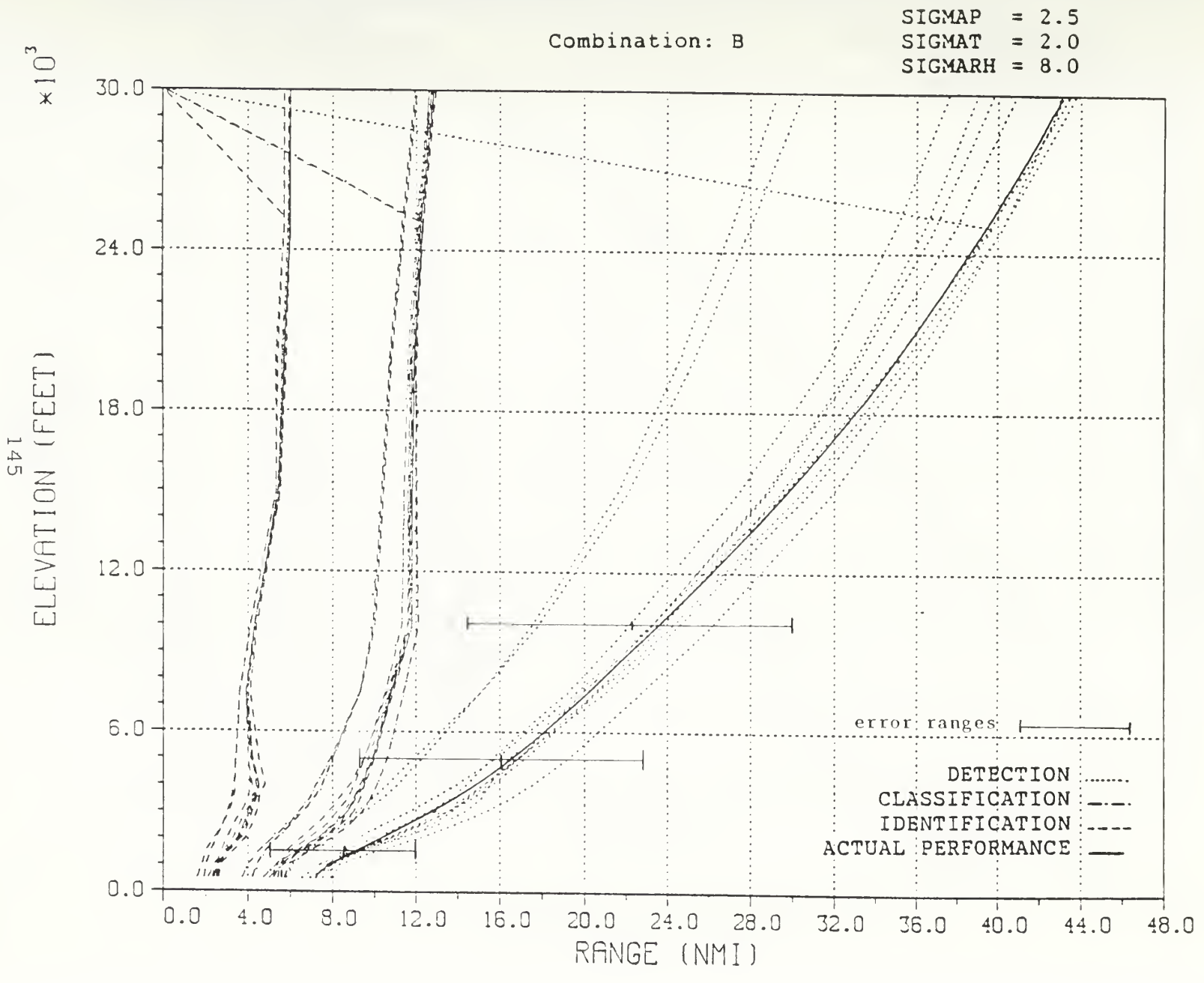

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

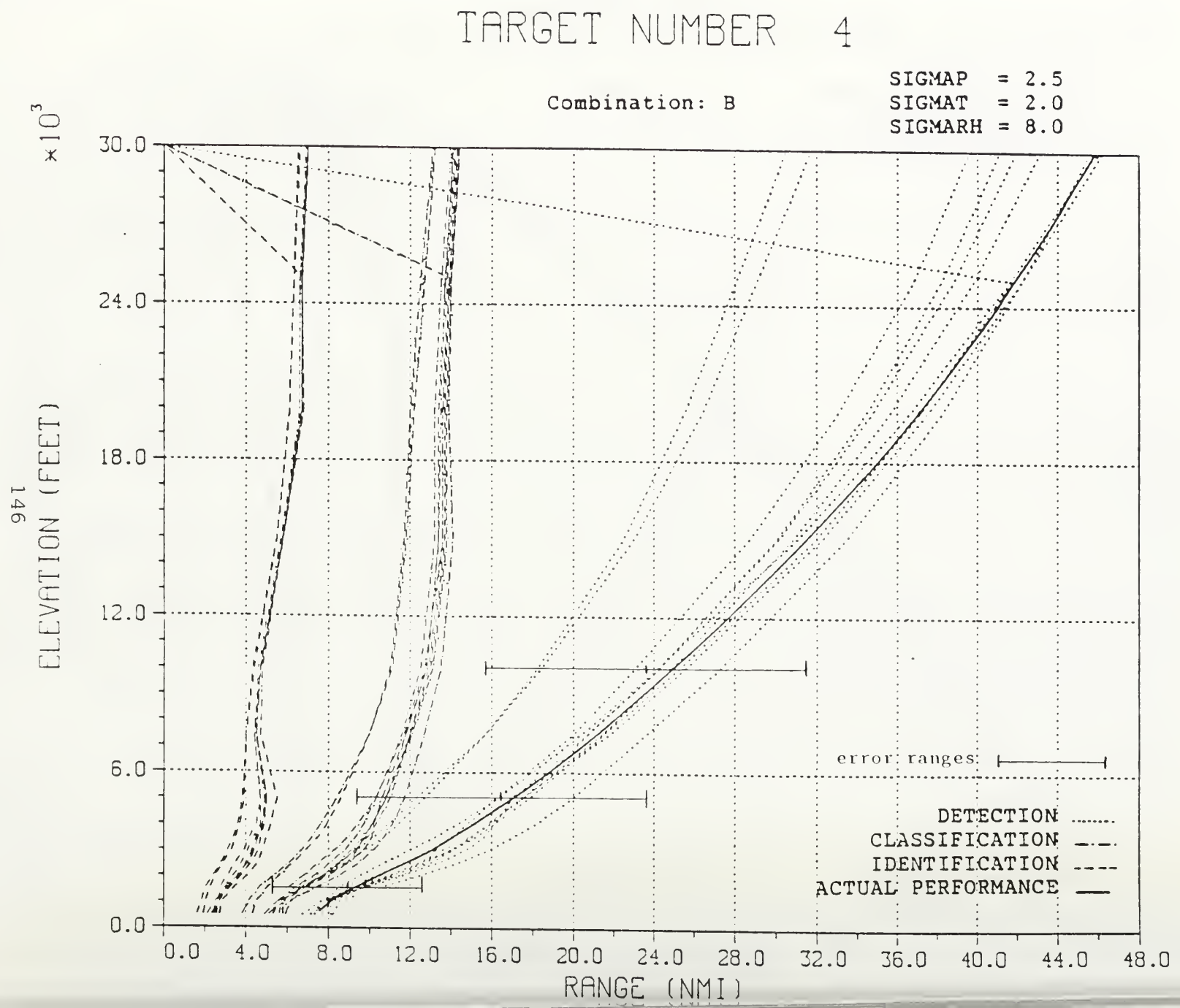

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

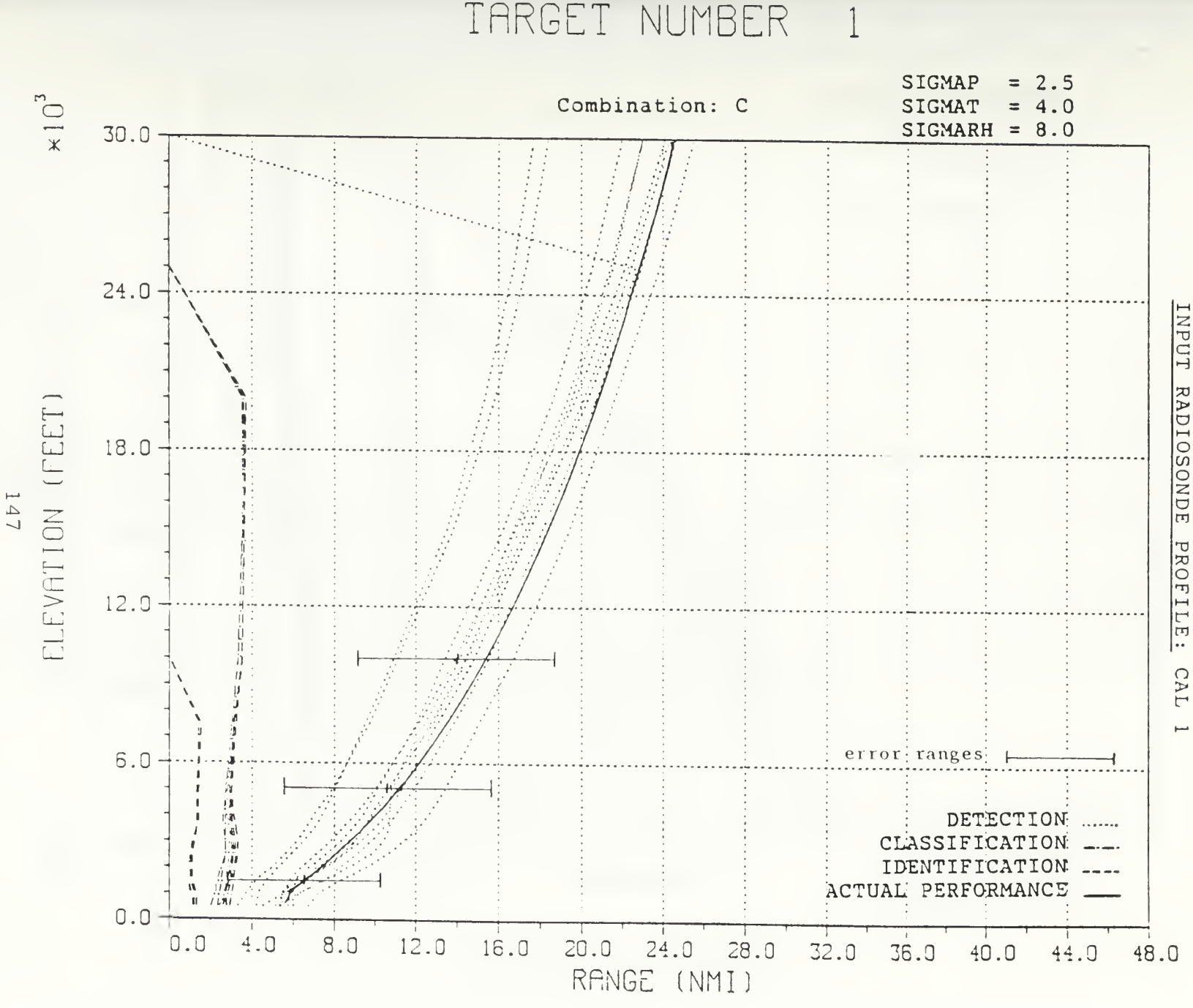

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

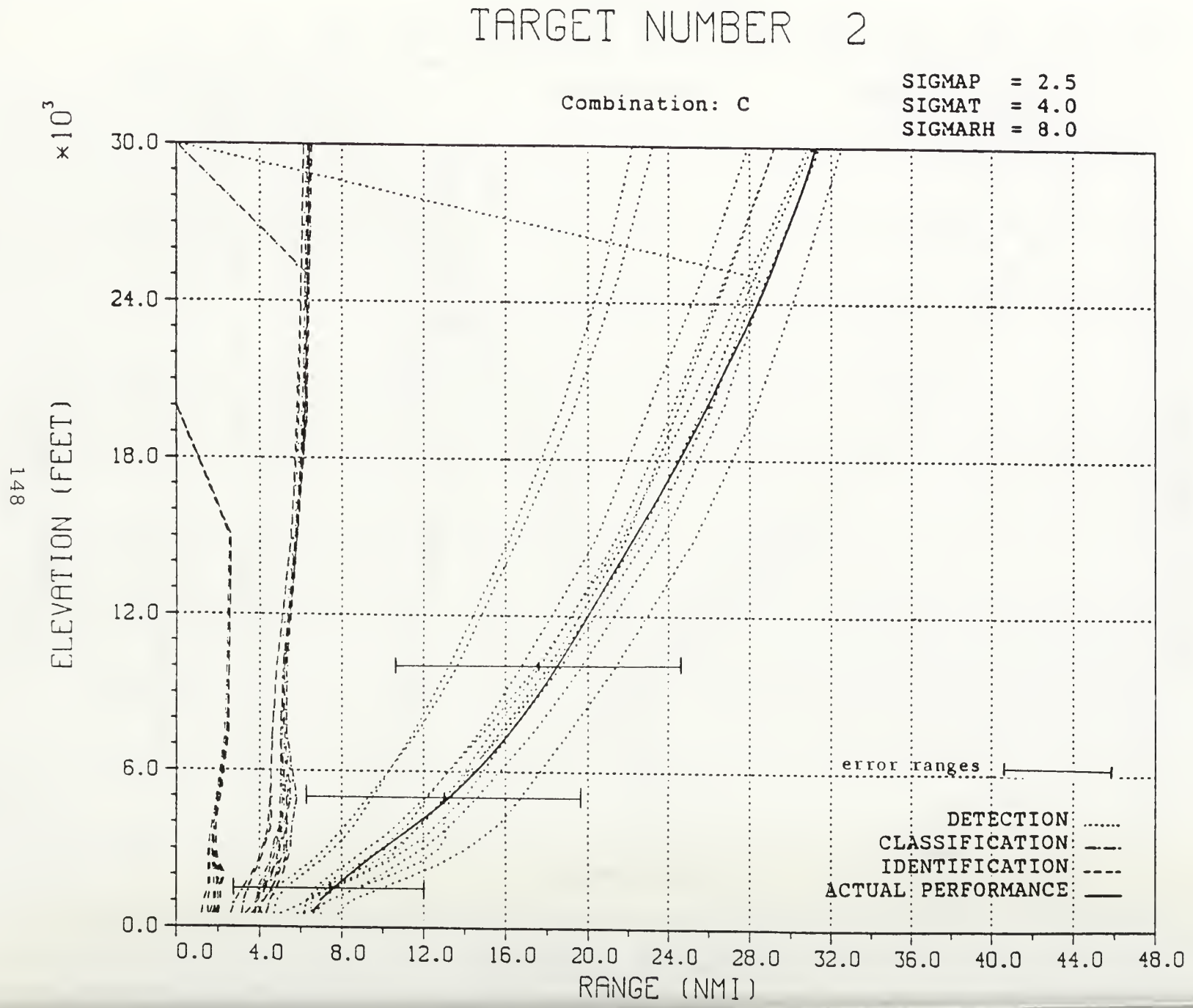

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 1

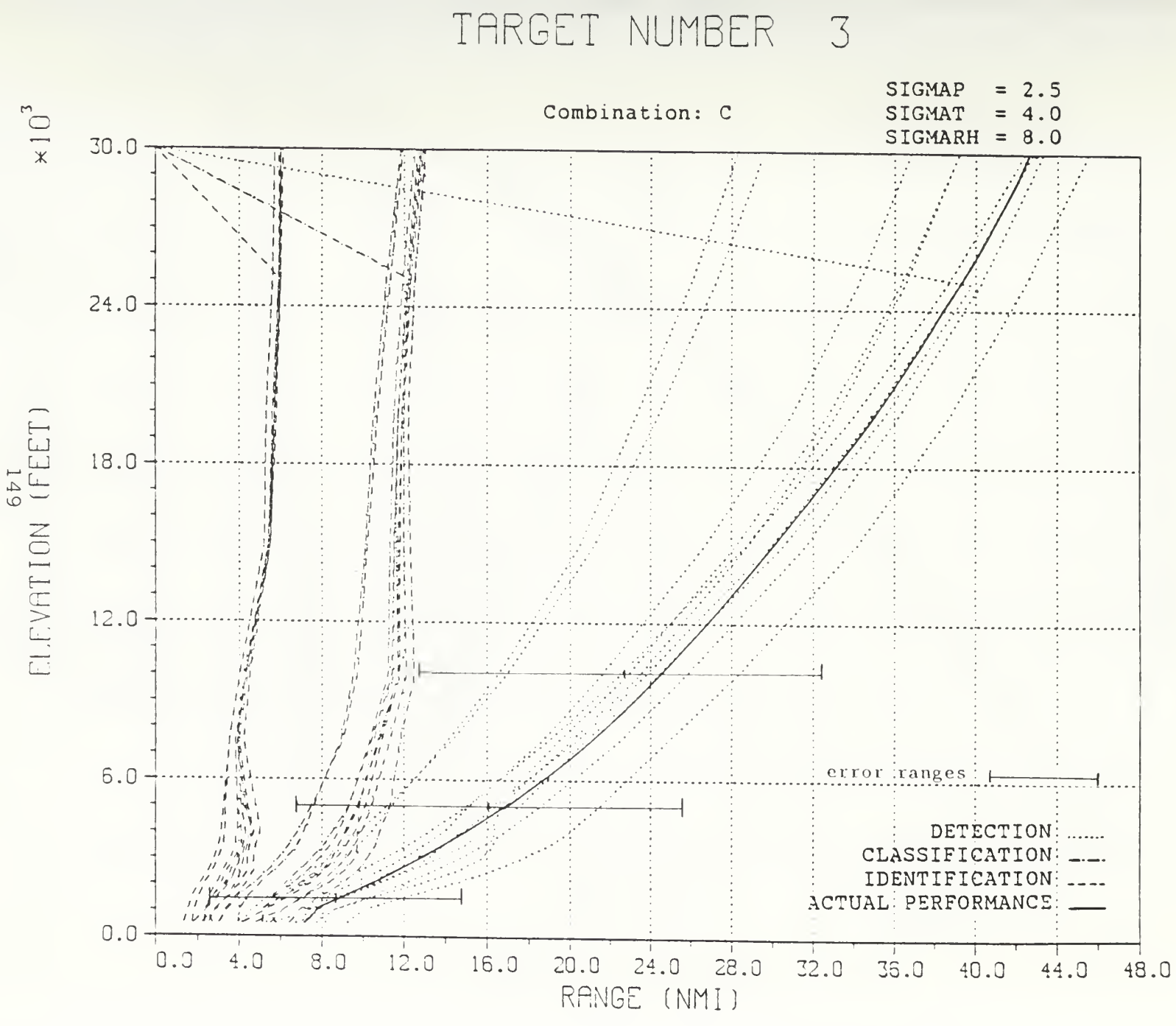

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

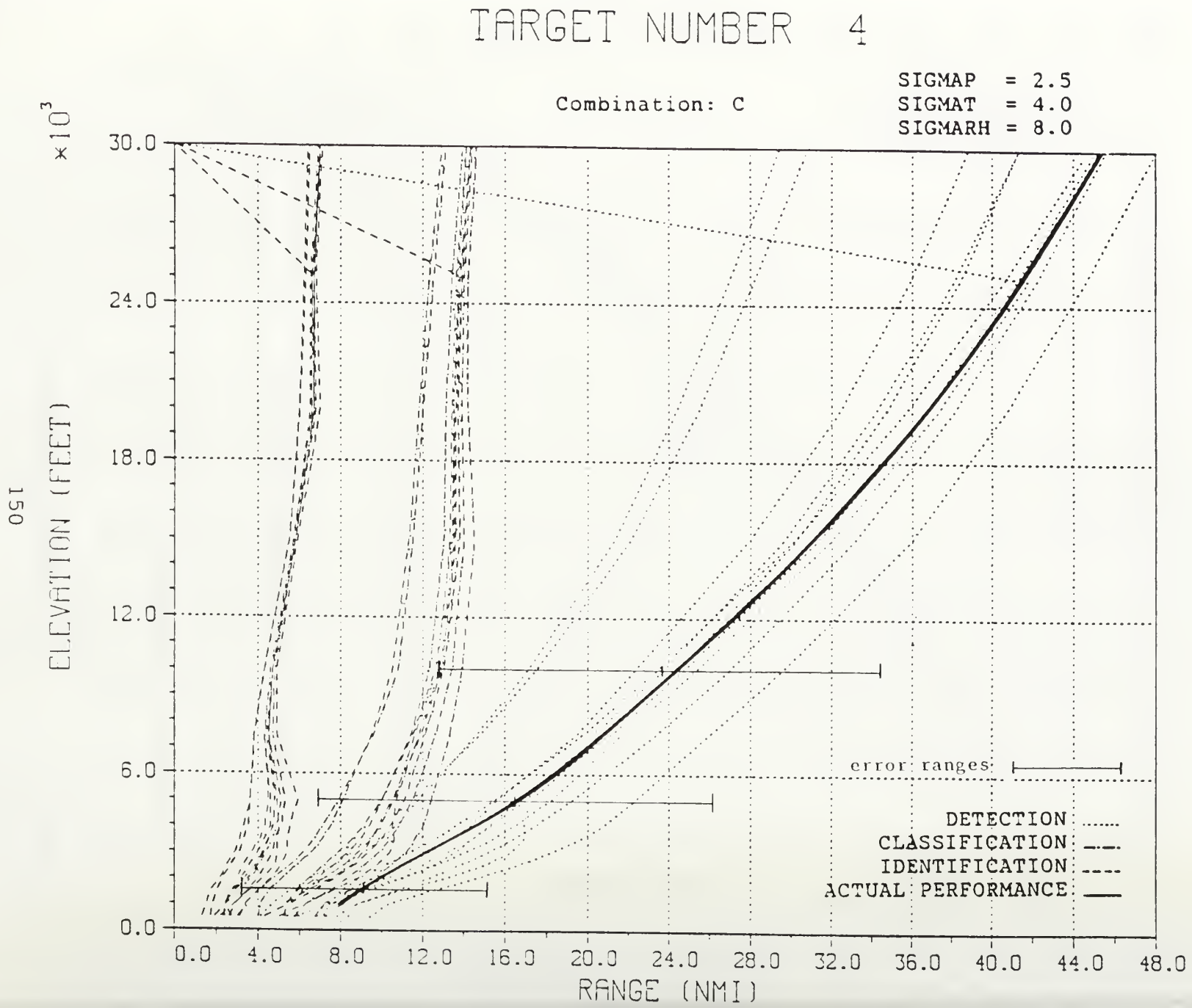

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

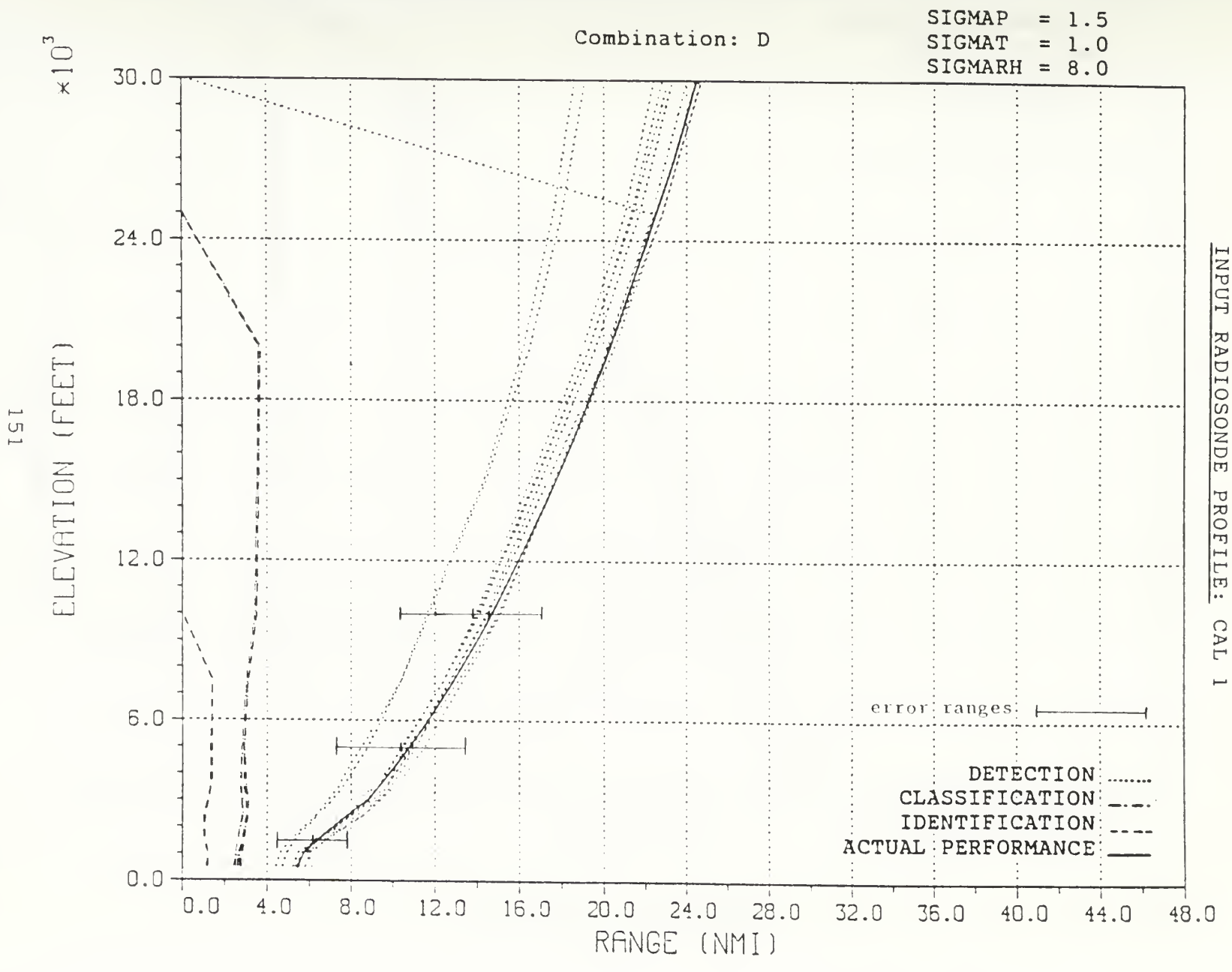

TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 1
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

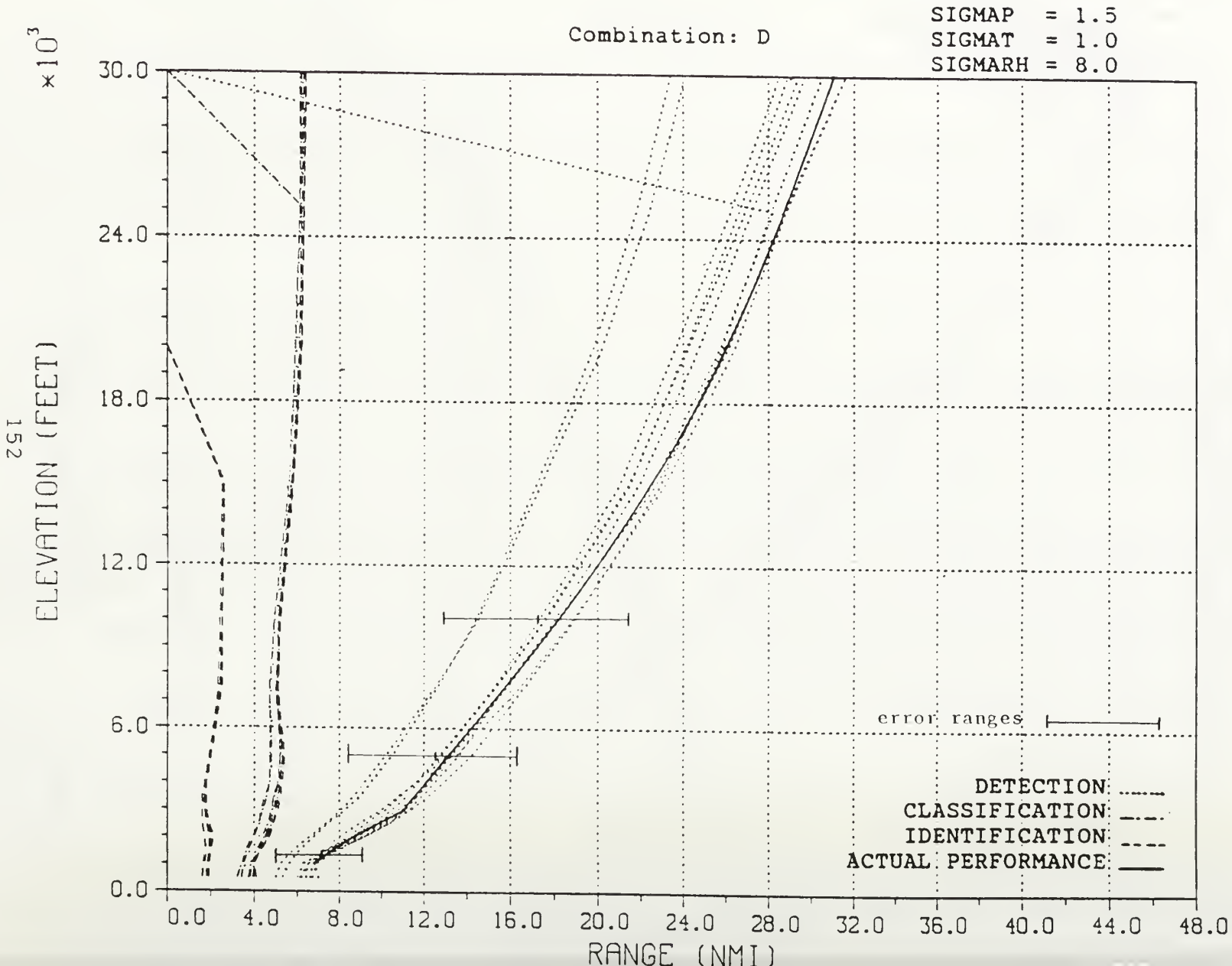

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

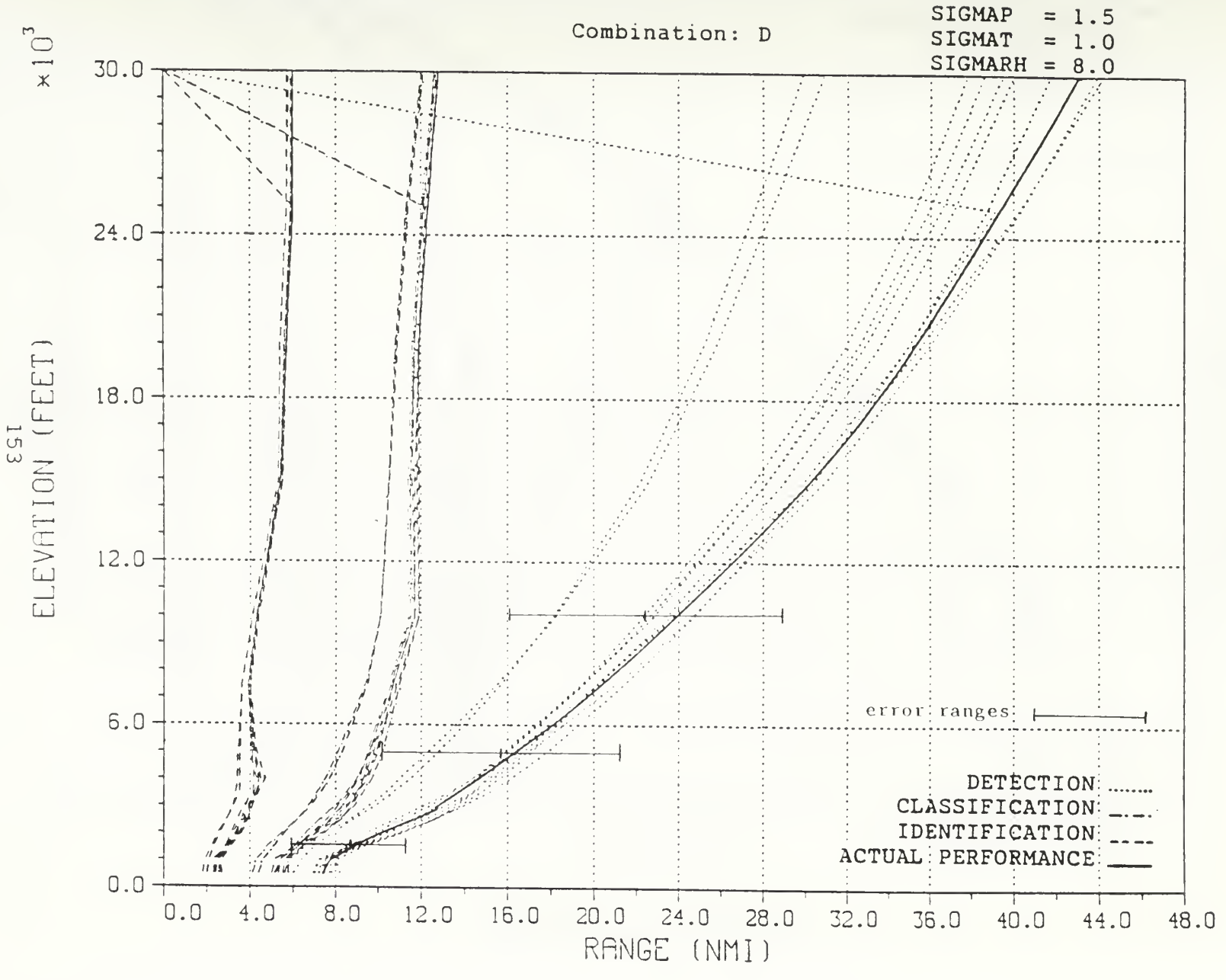

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

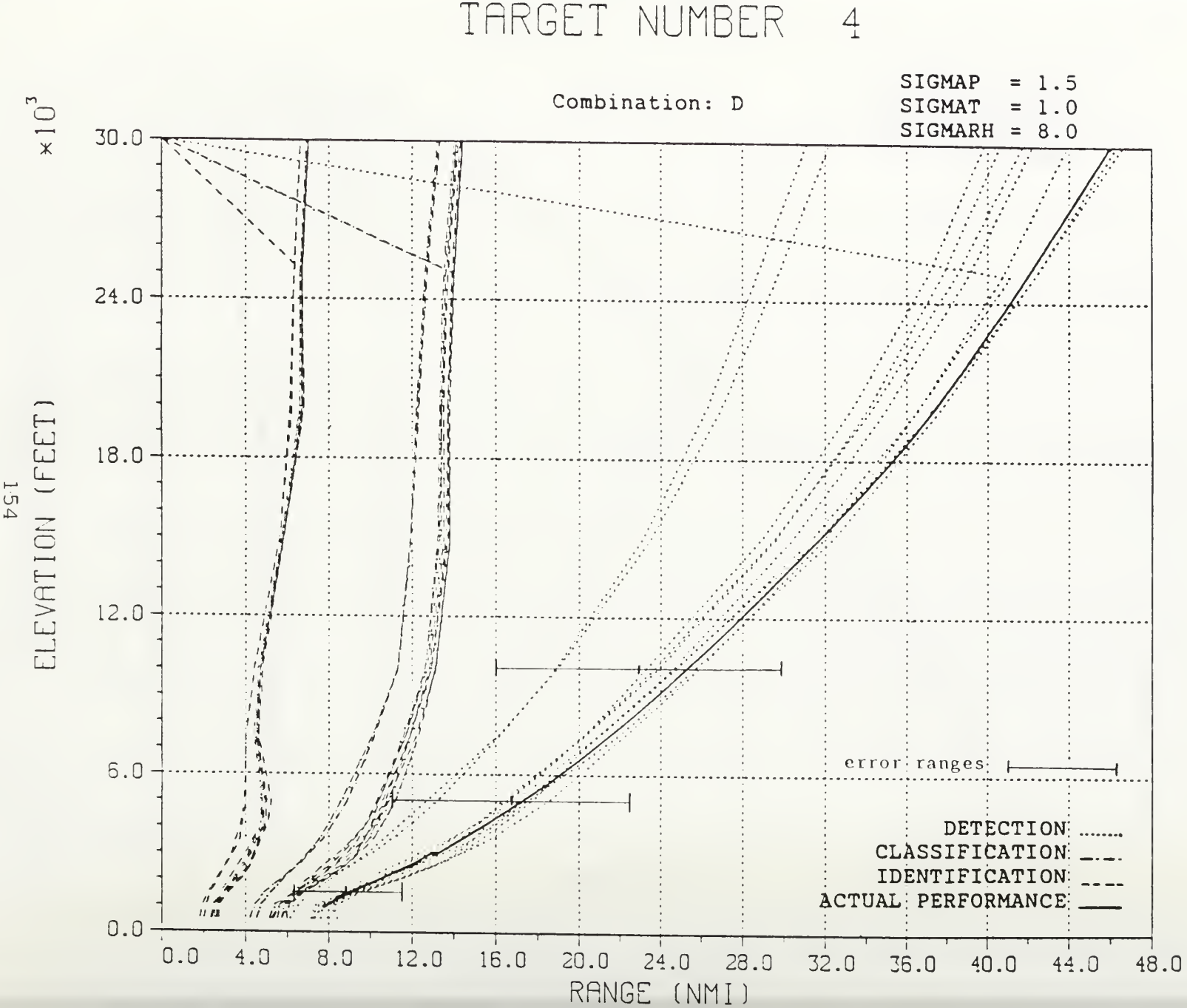

TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

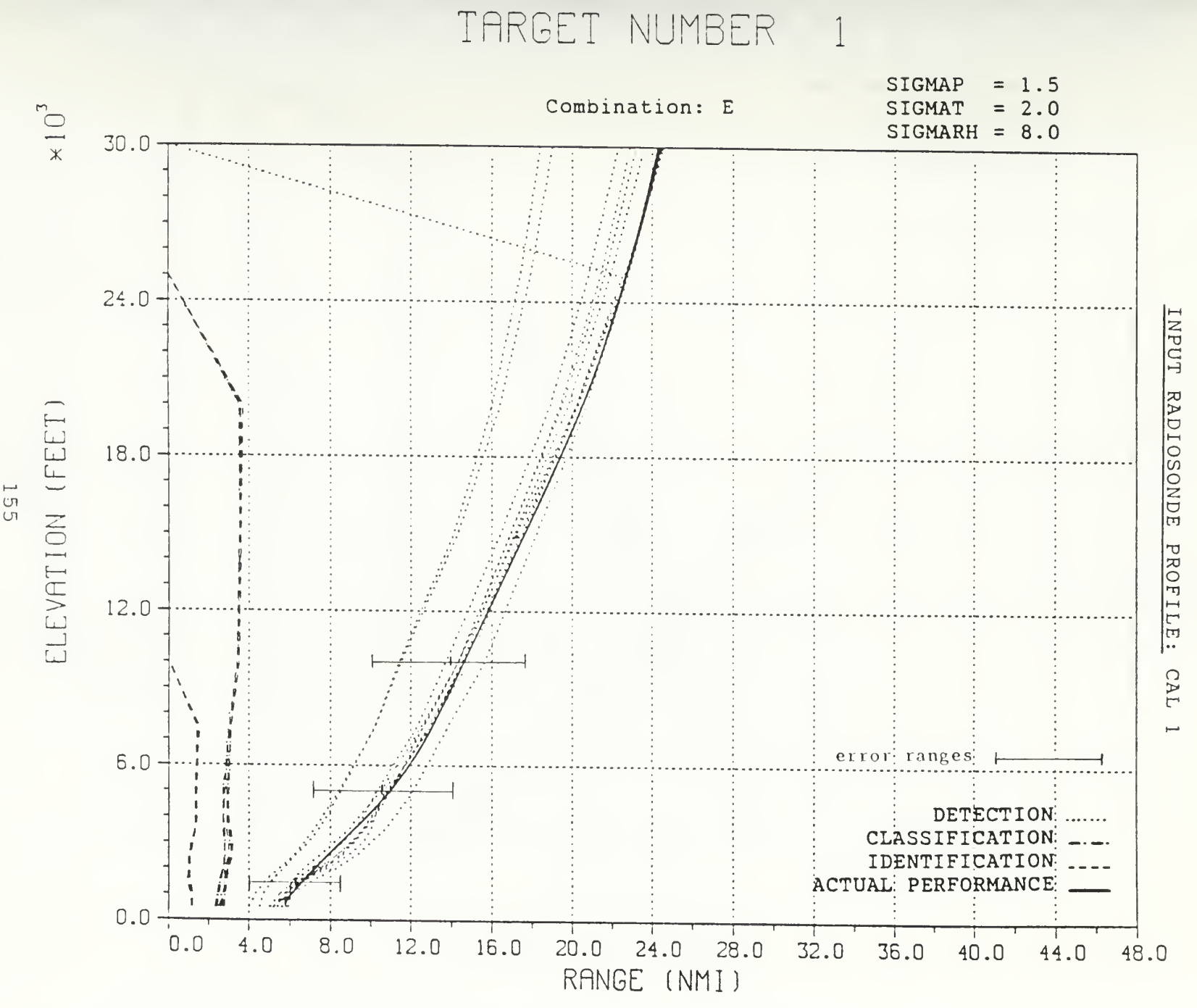

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 1

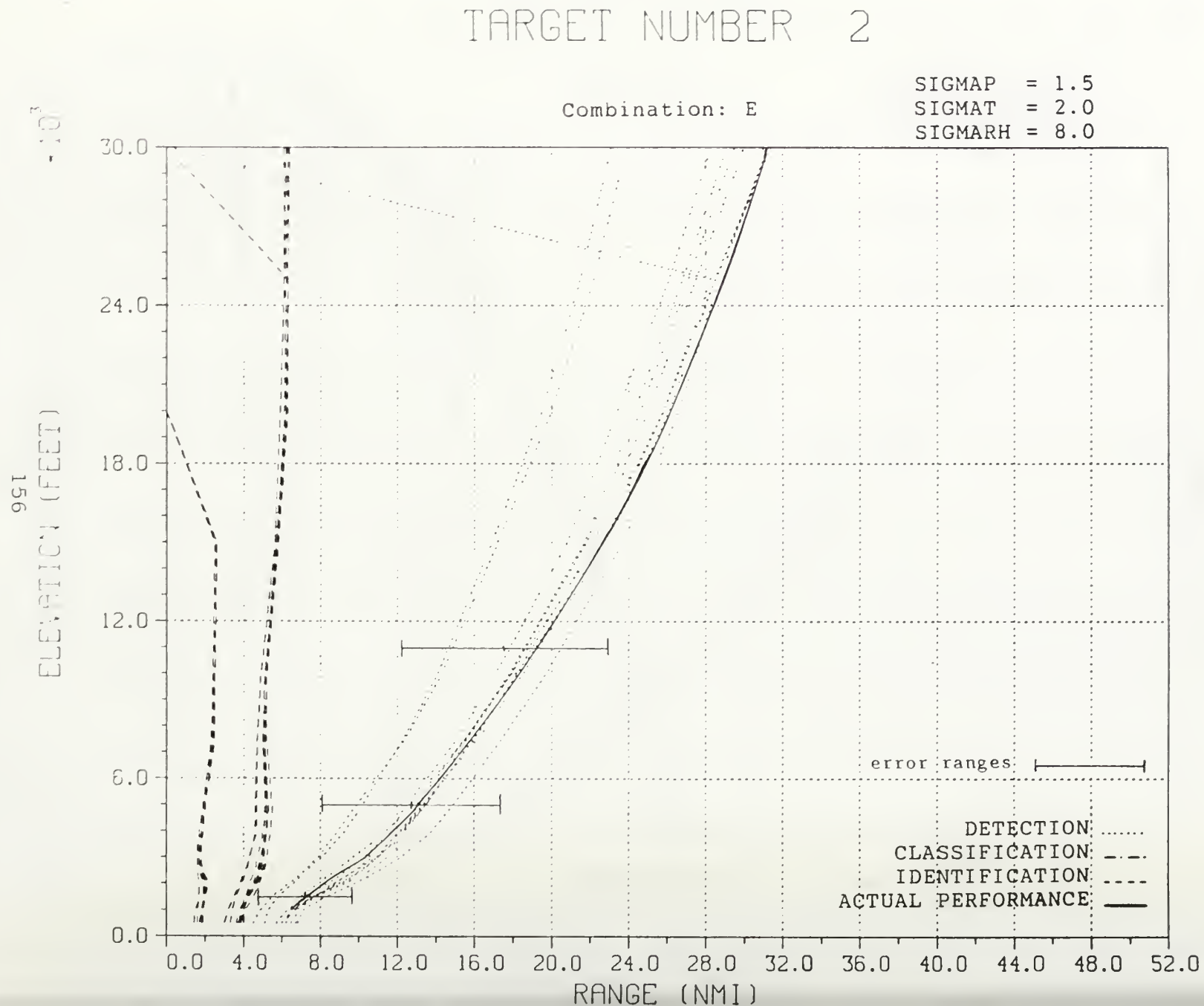
TARGET NUMBER 2

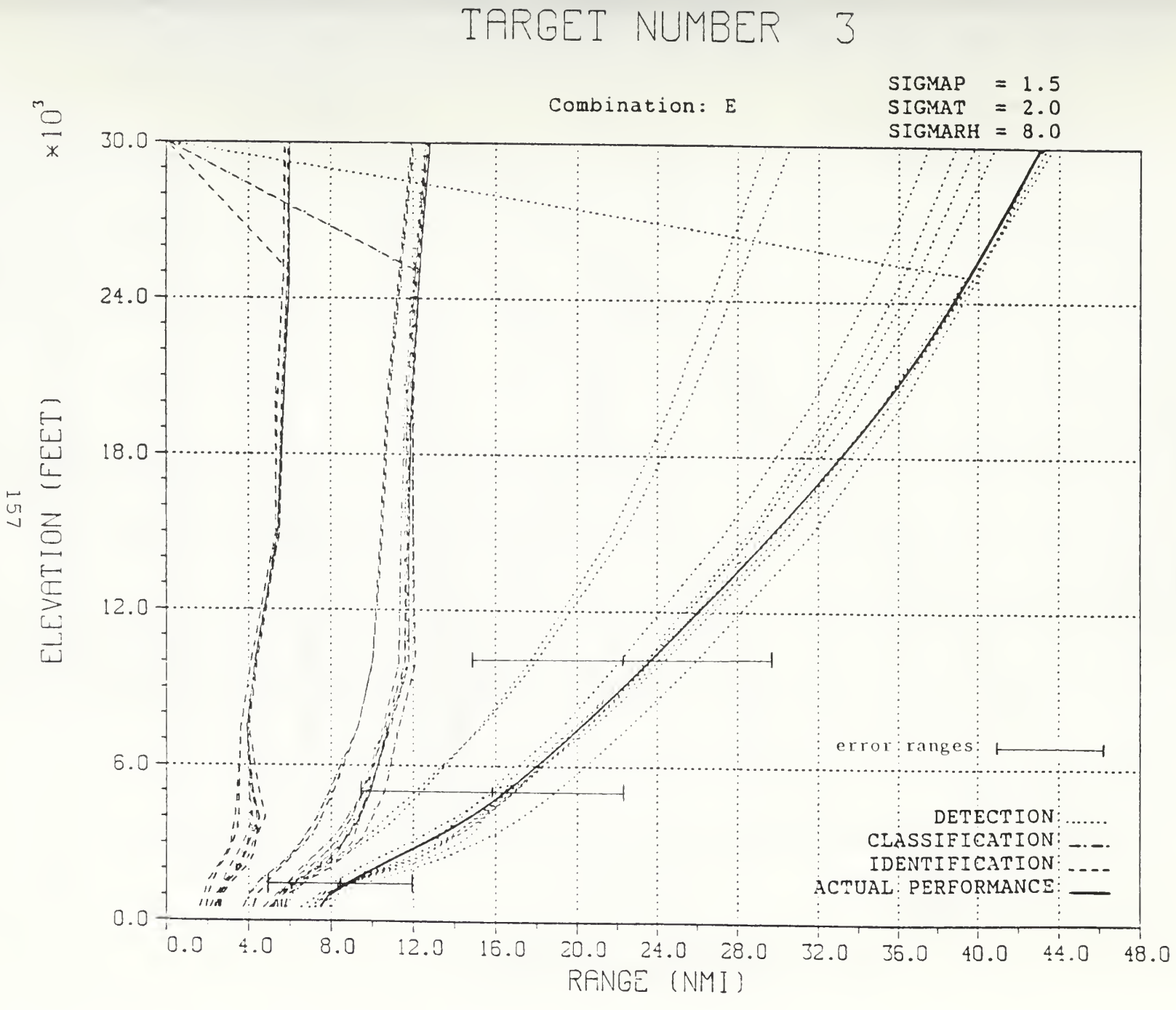


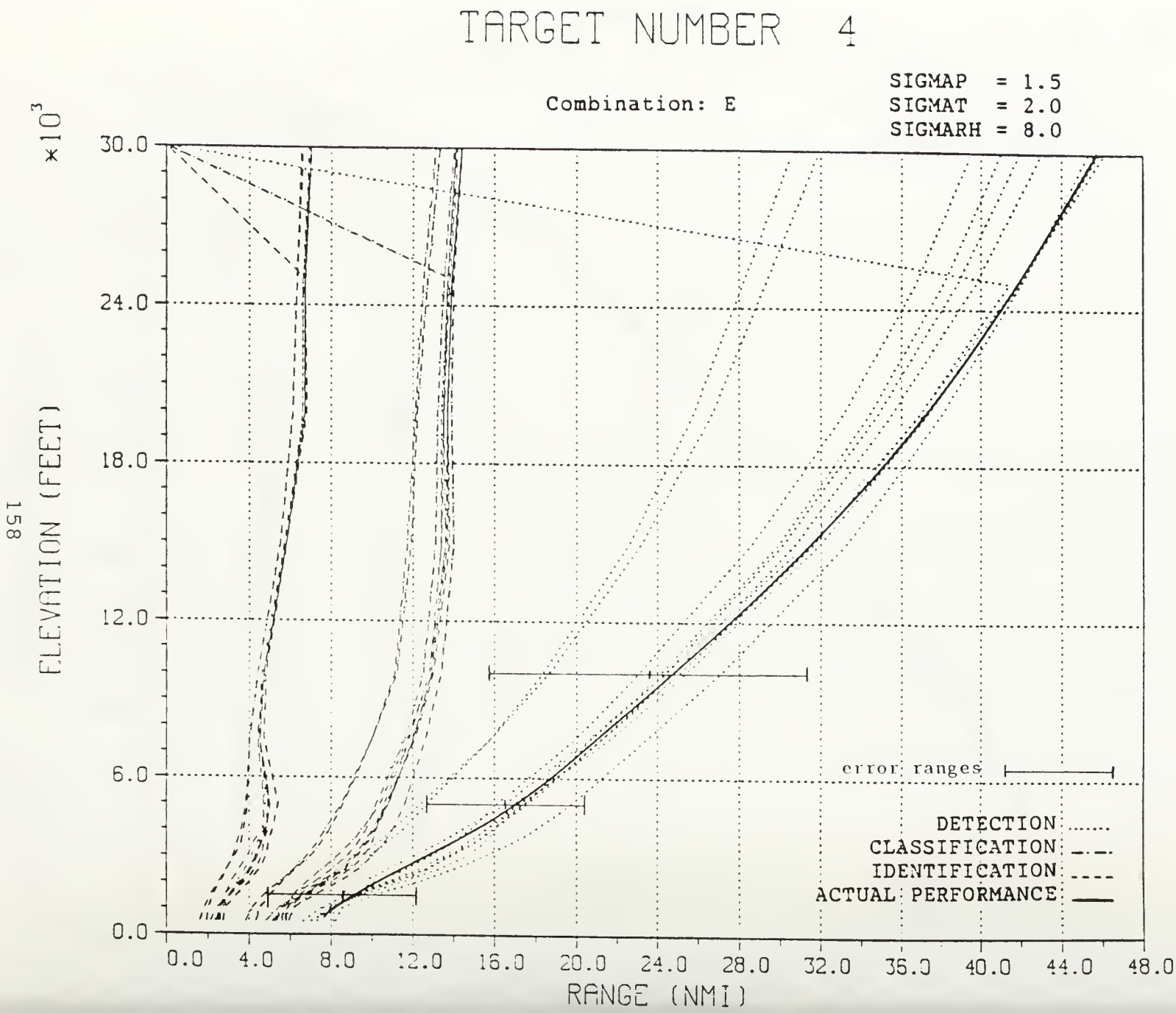

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

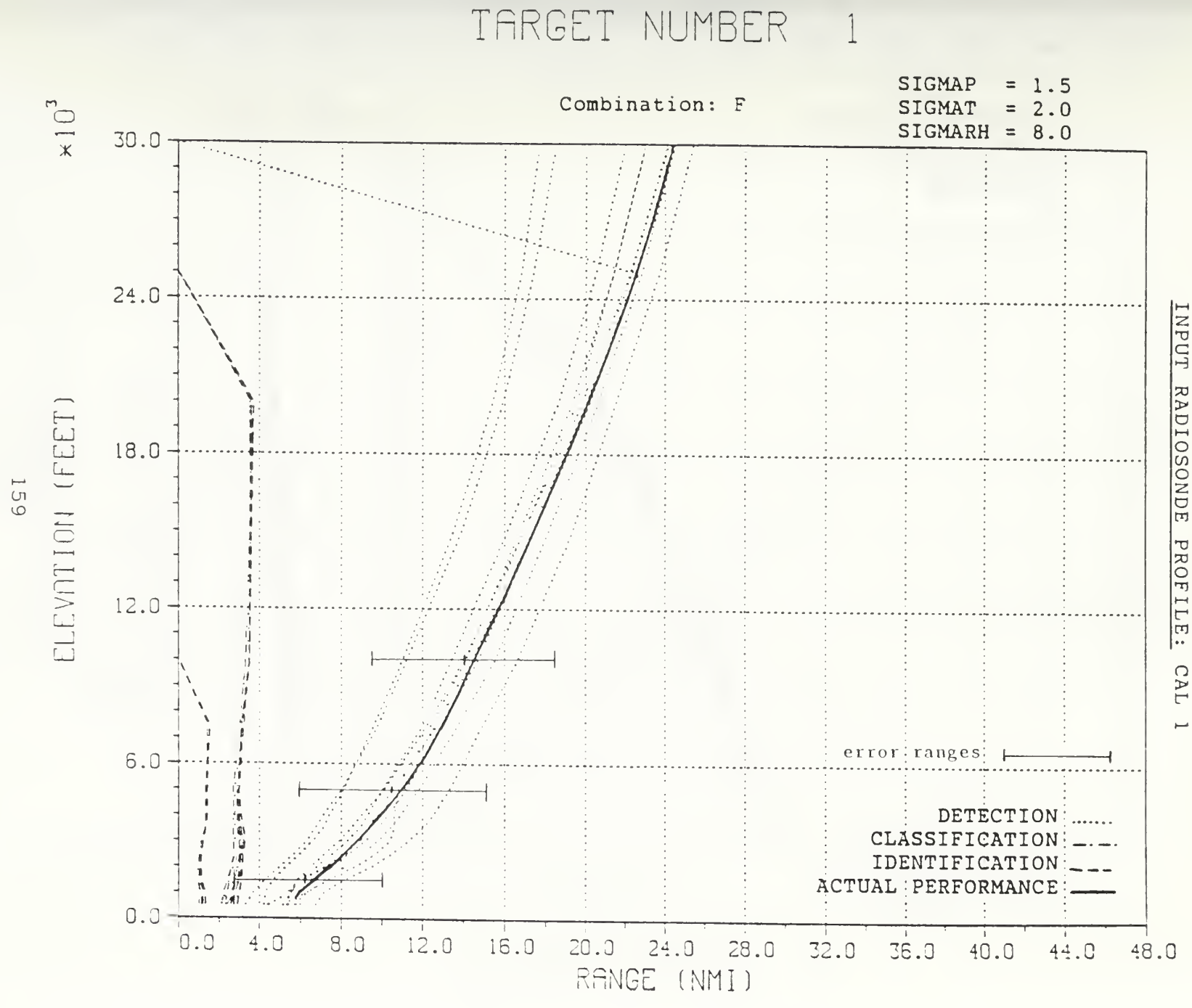

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

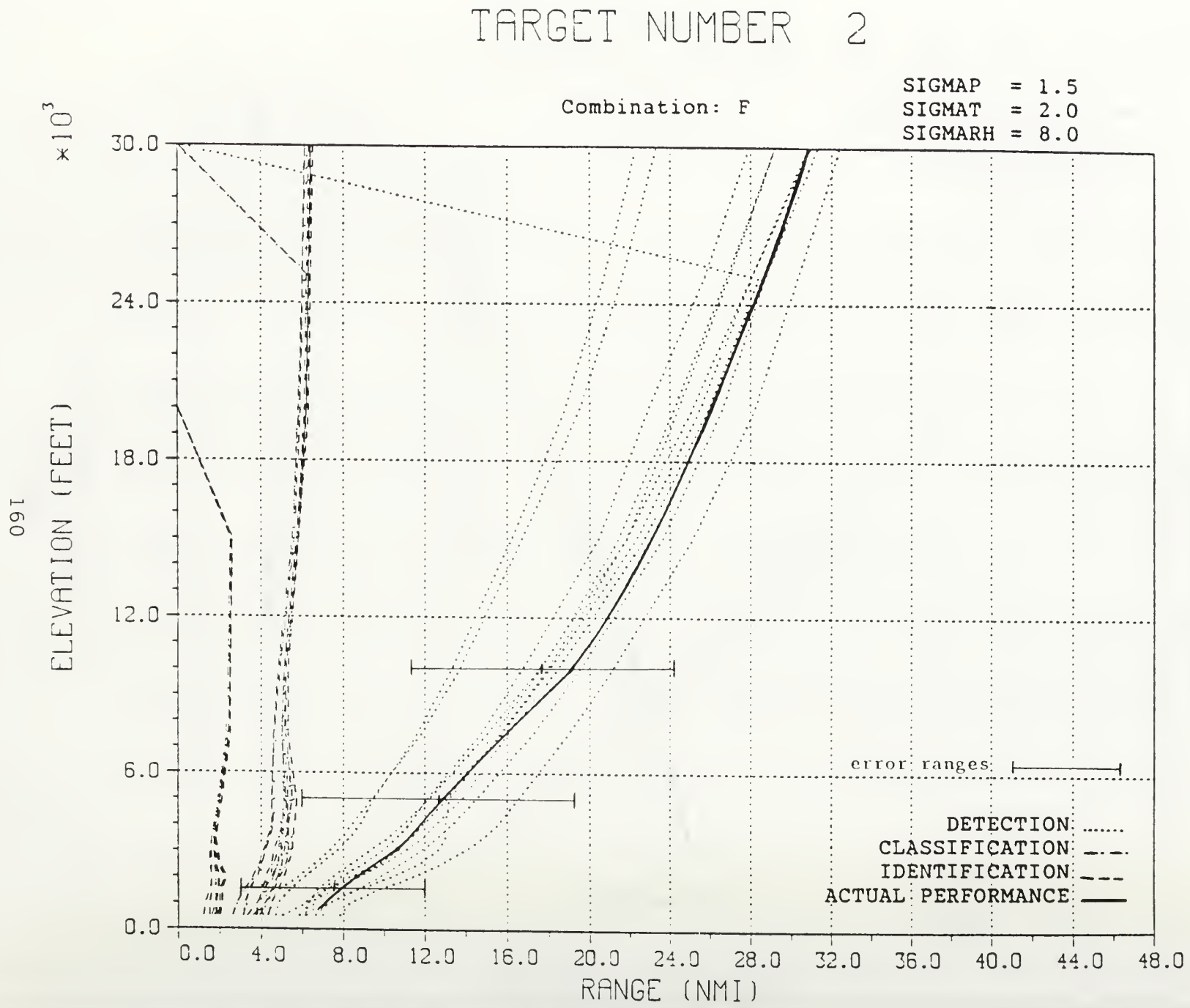

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 1

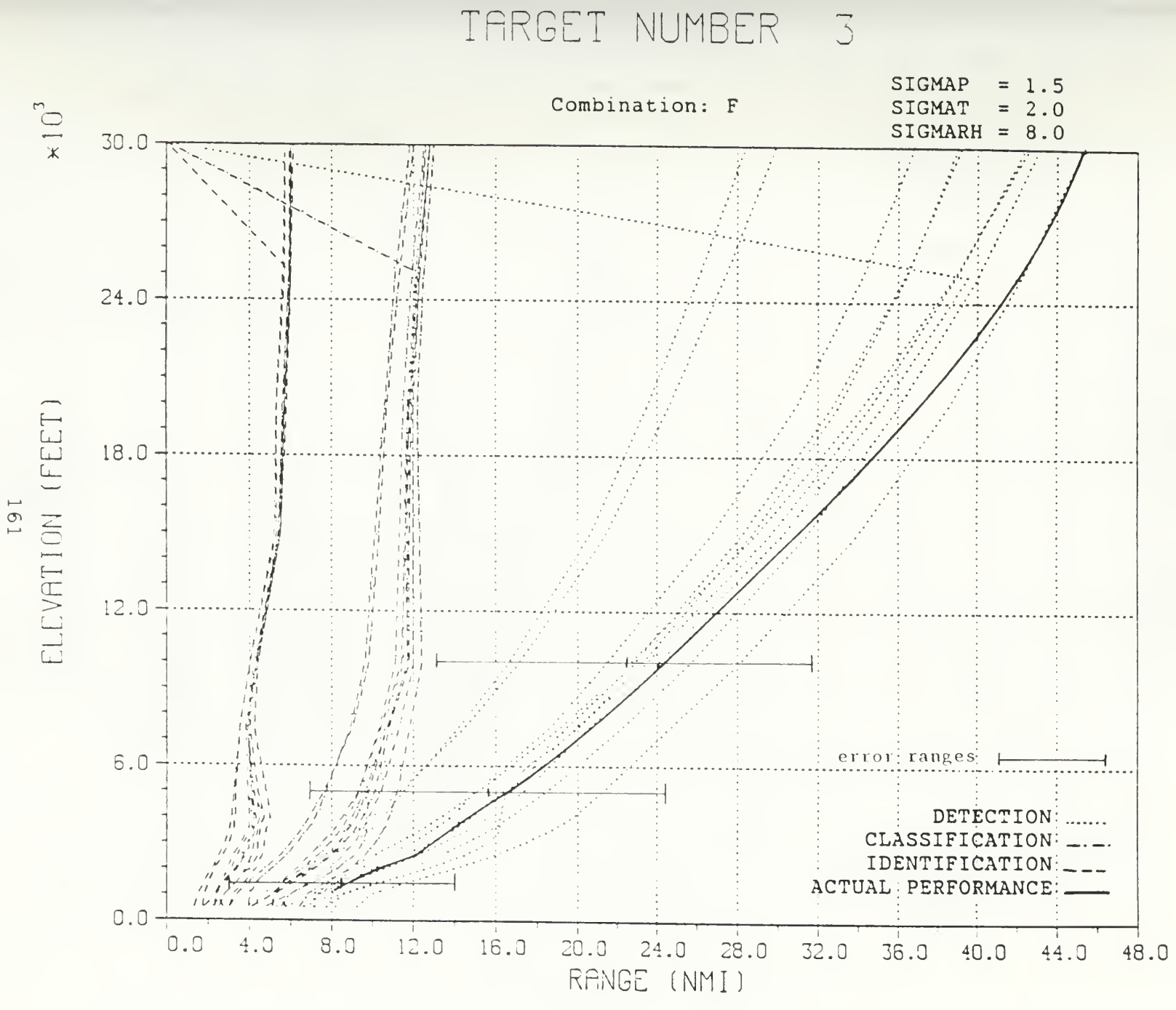

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

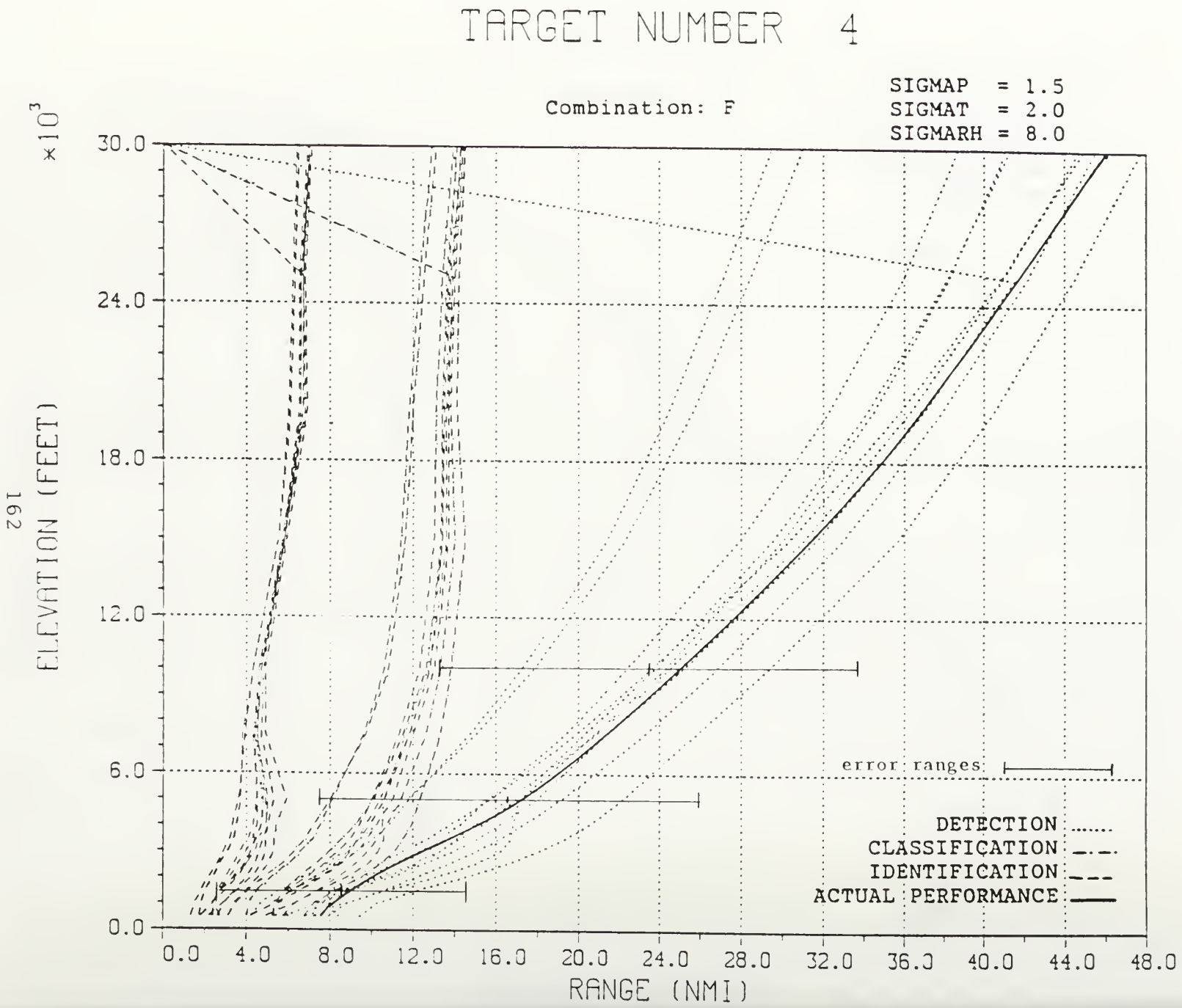

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

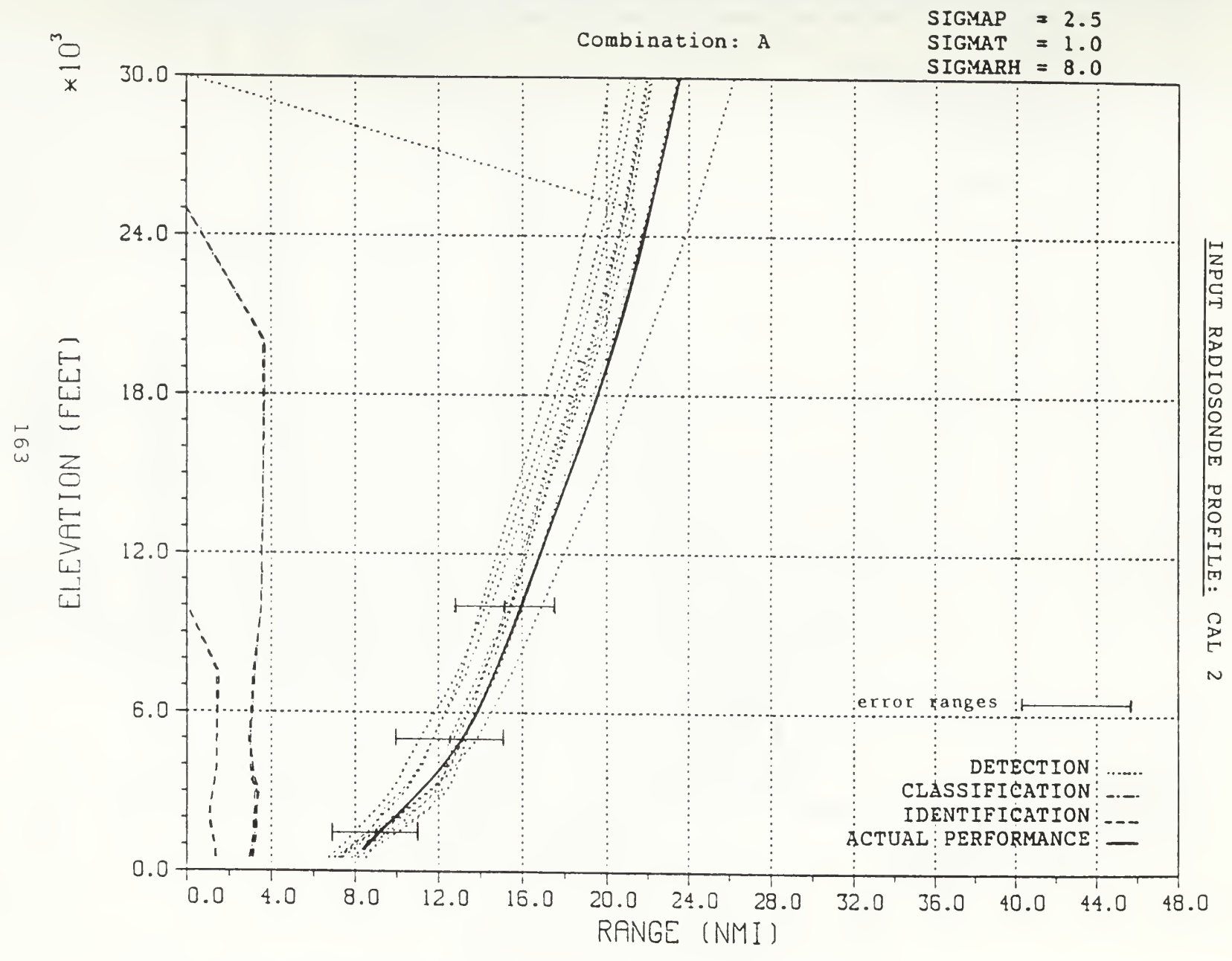

TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 1

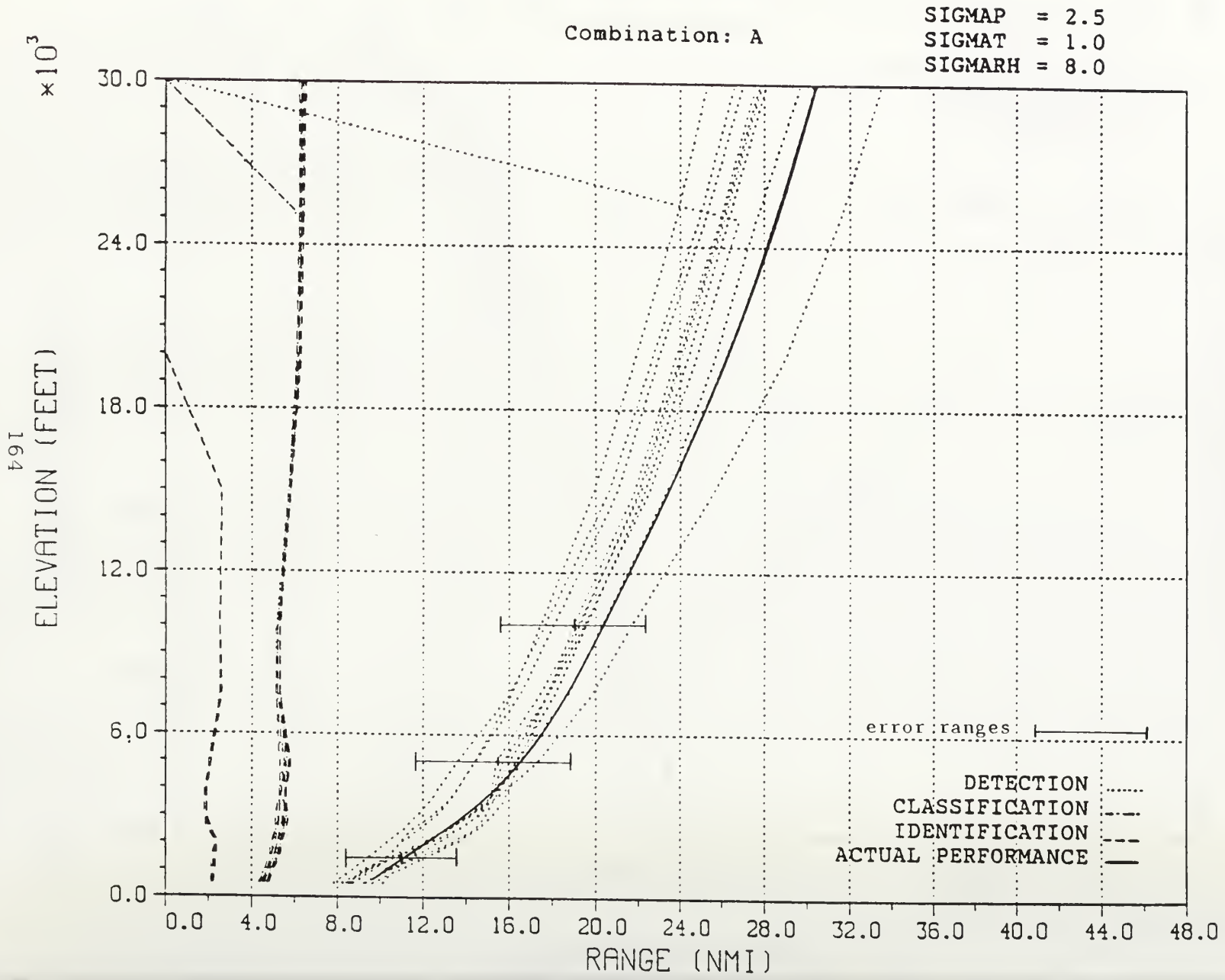

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

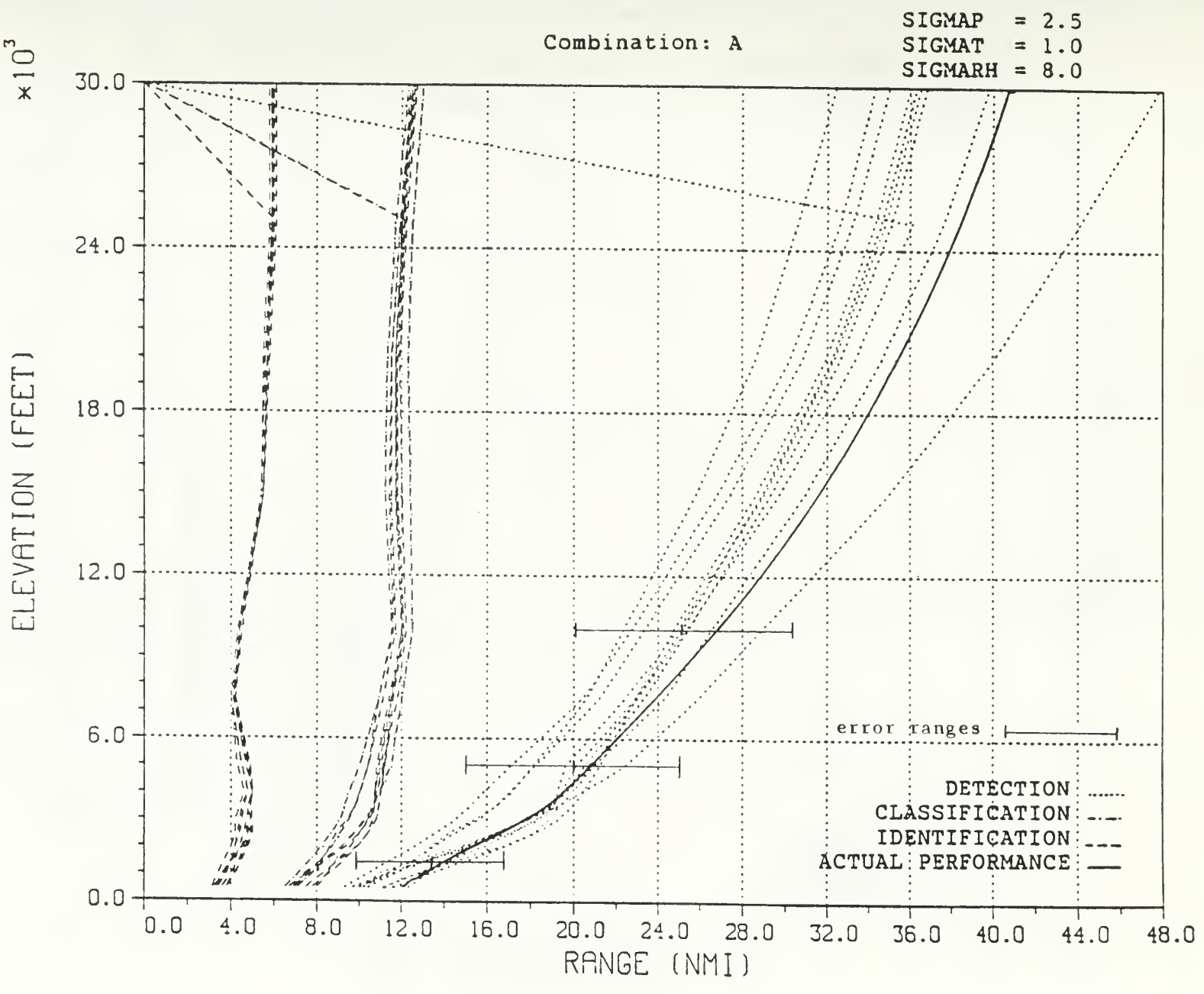

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

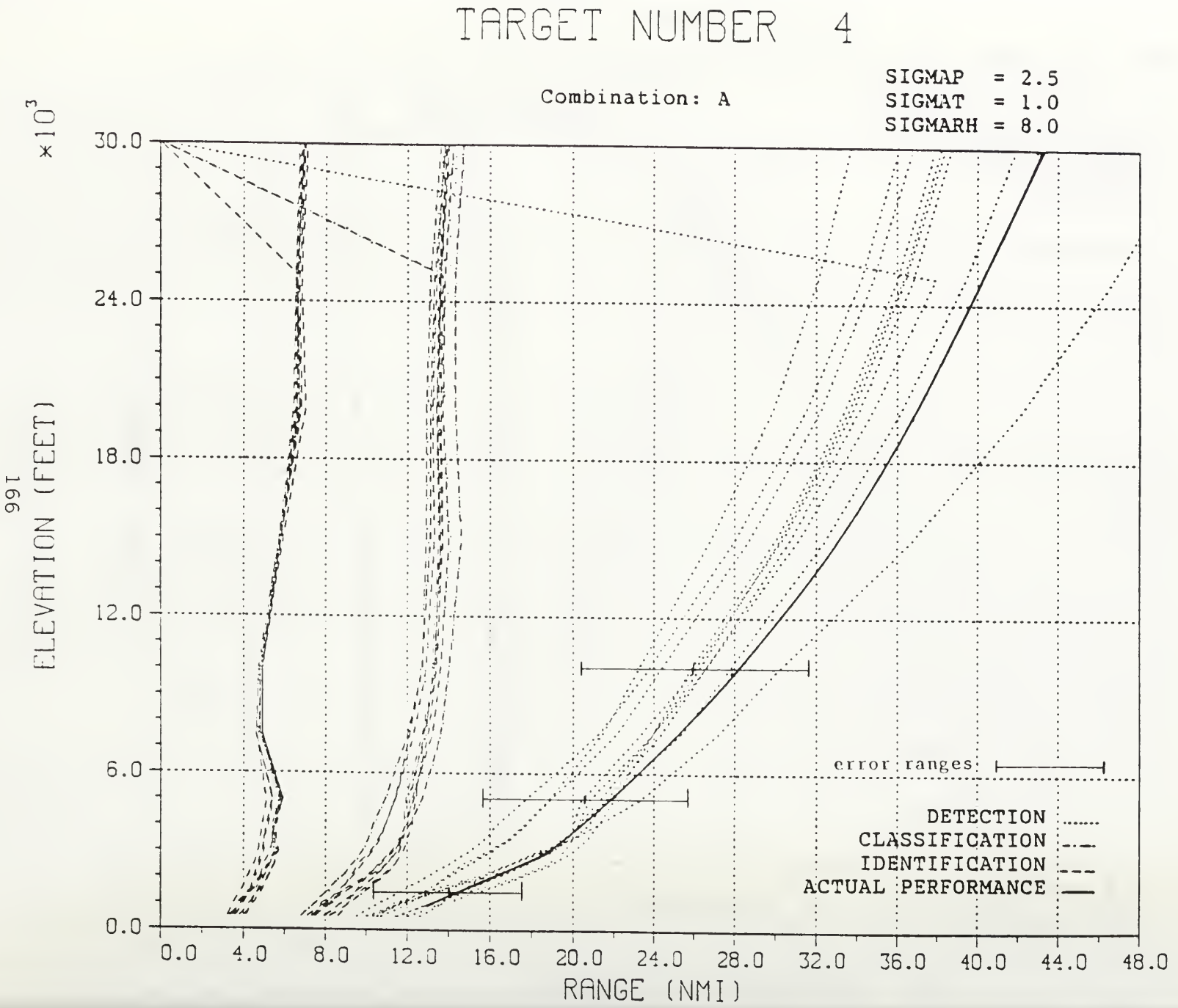

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

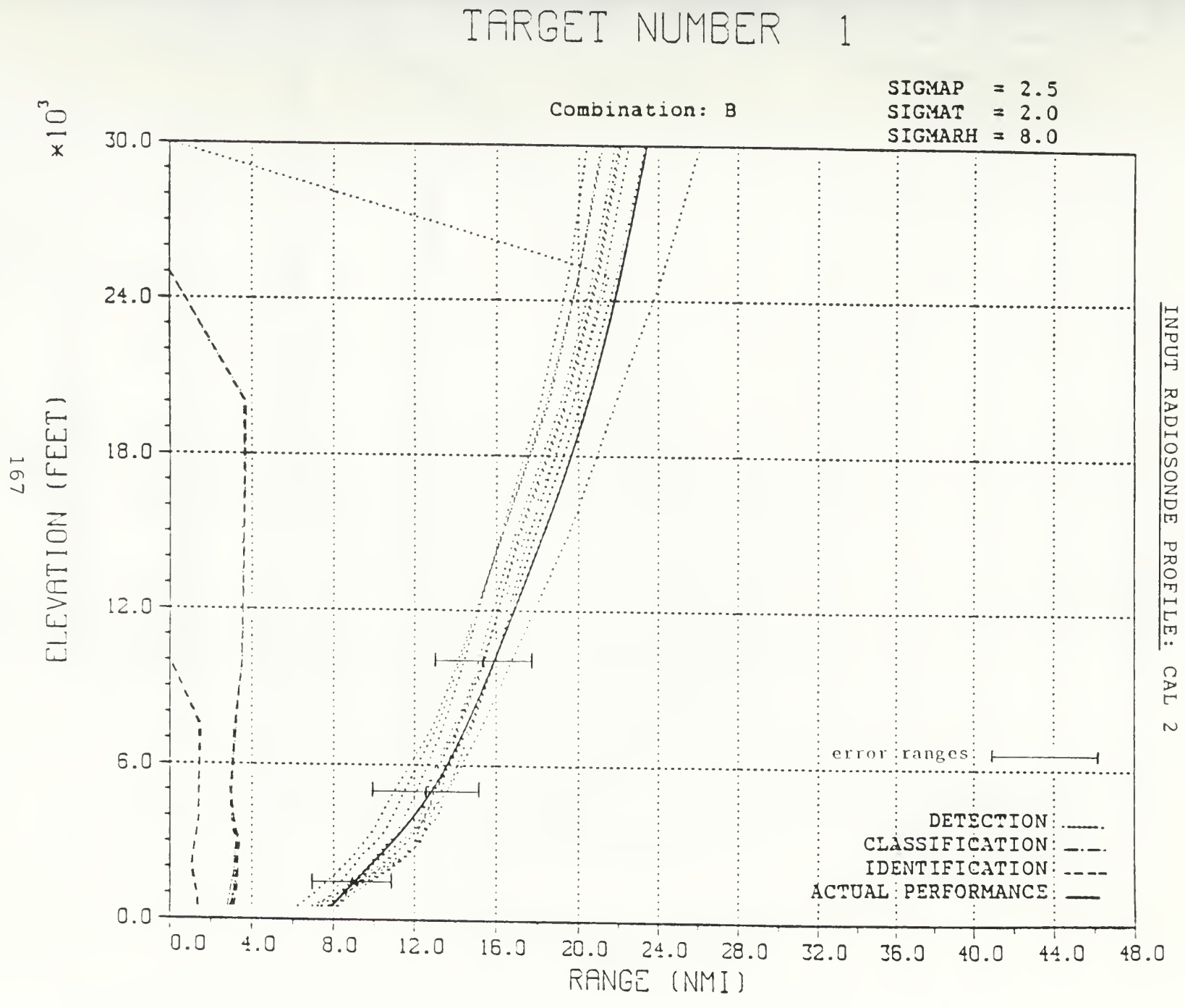

TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 2

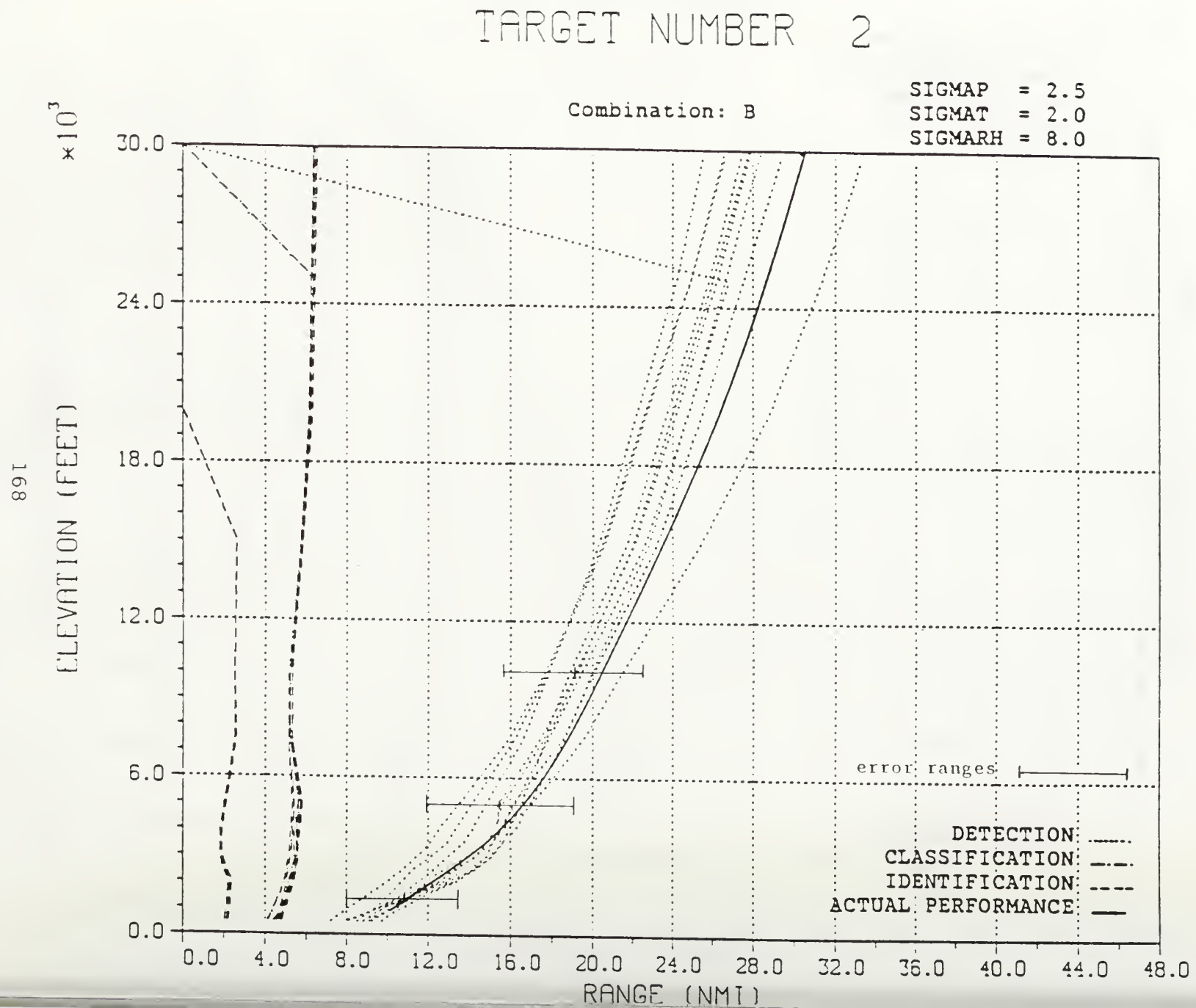
TARGET NUMBER 2

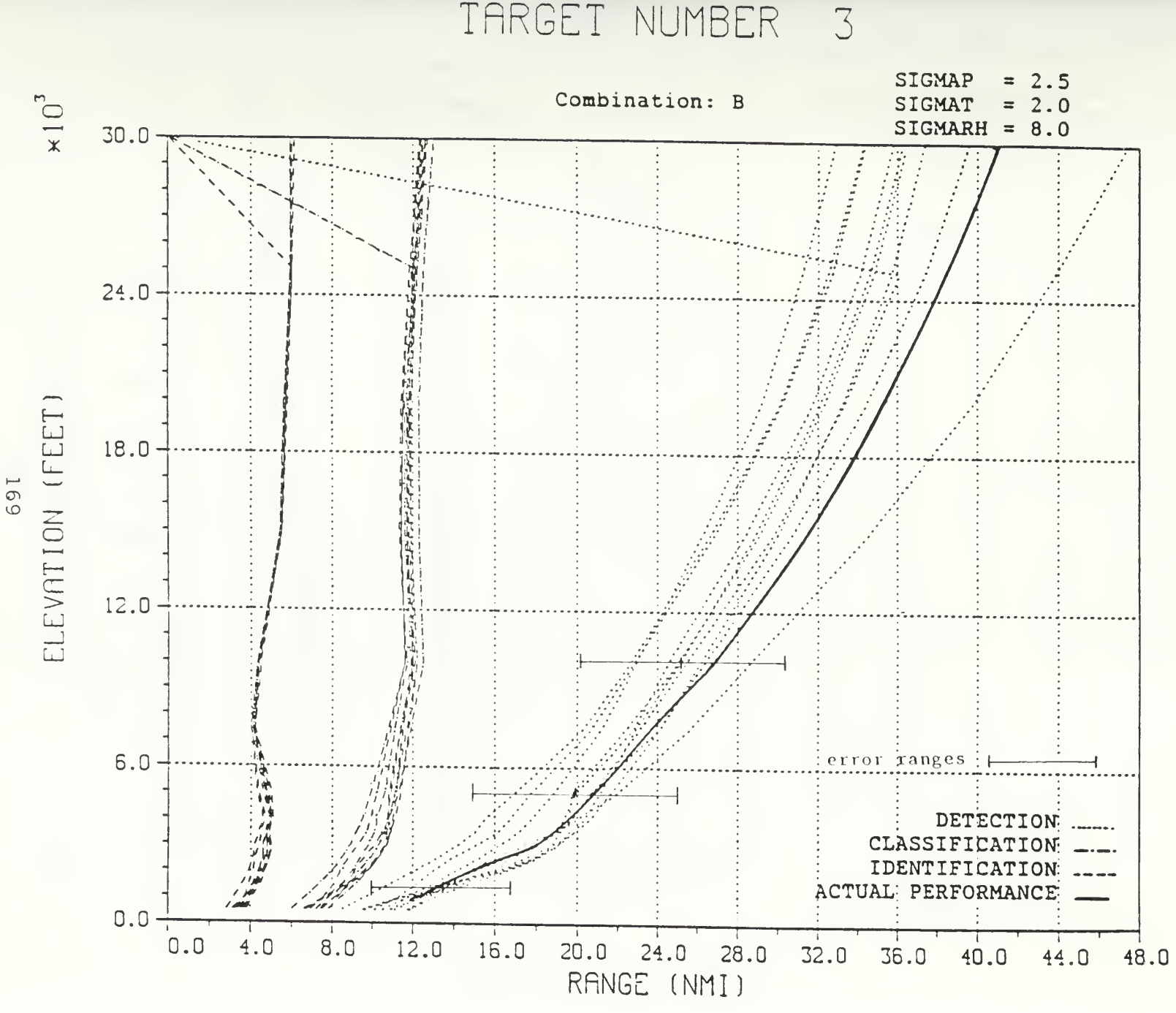


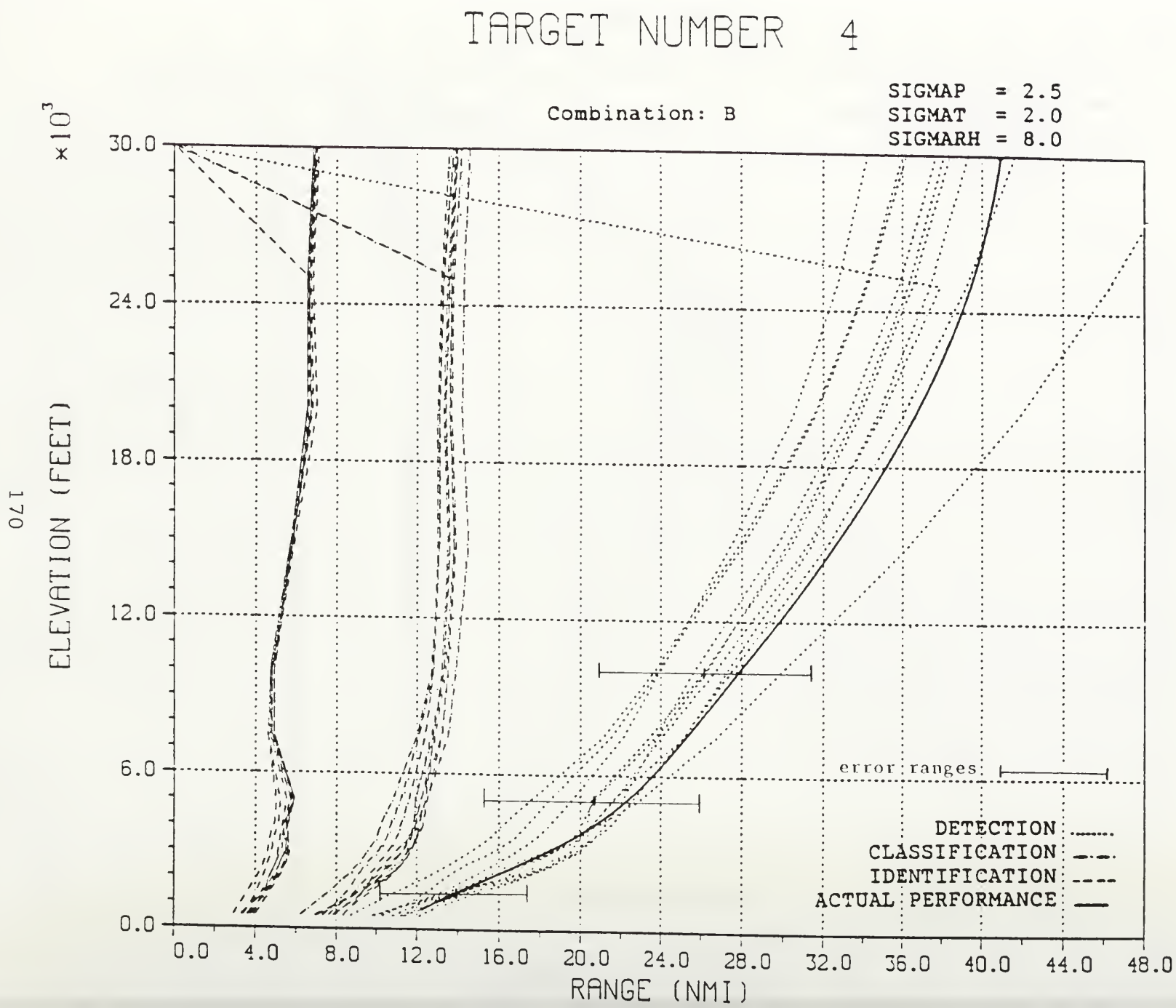

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

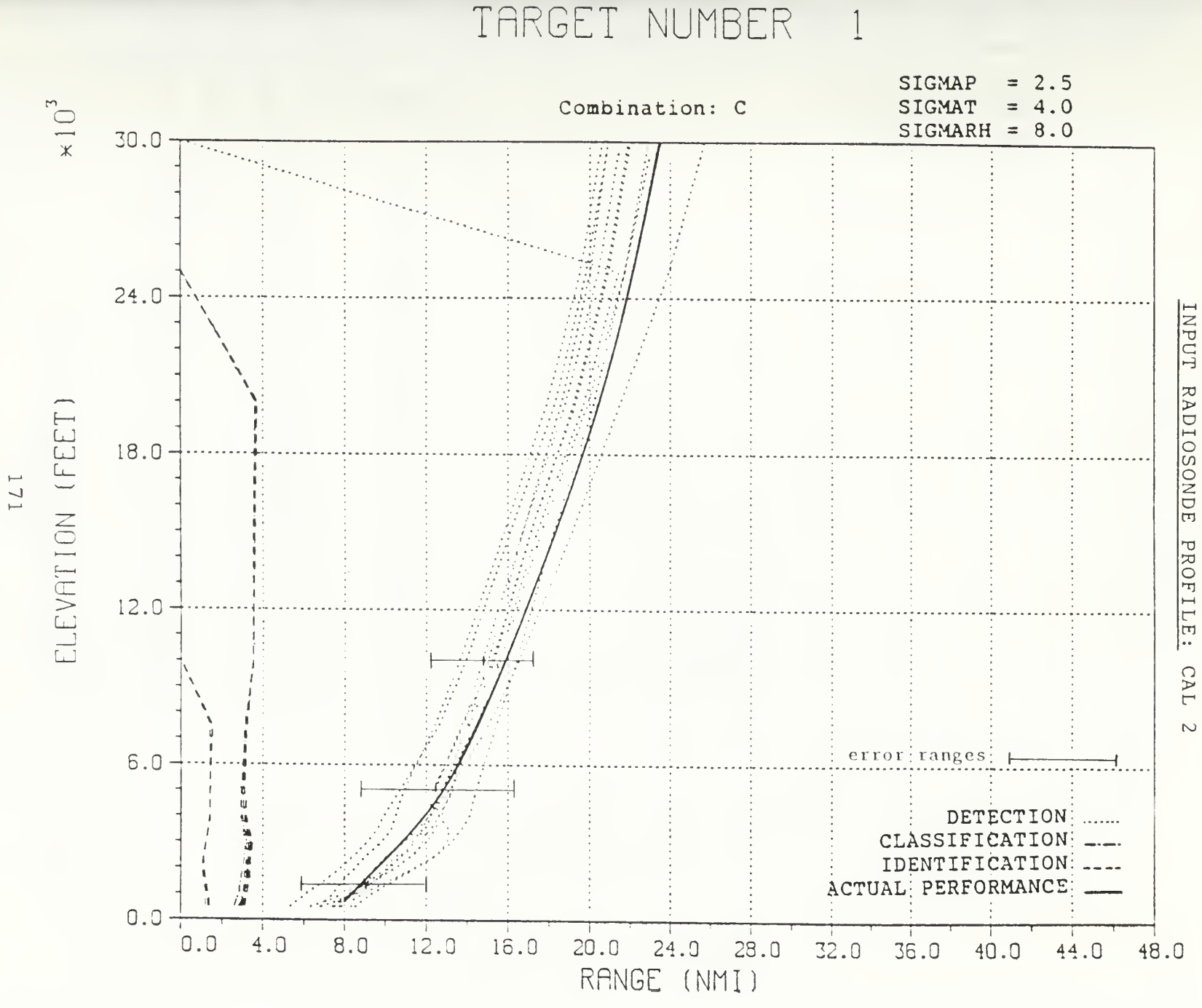

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

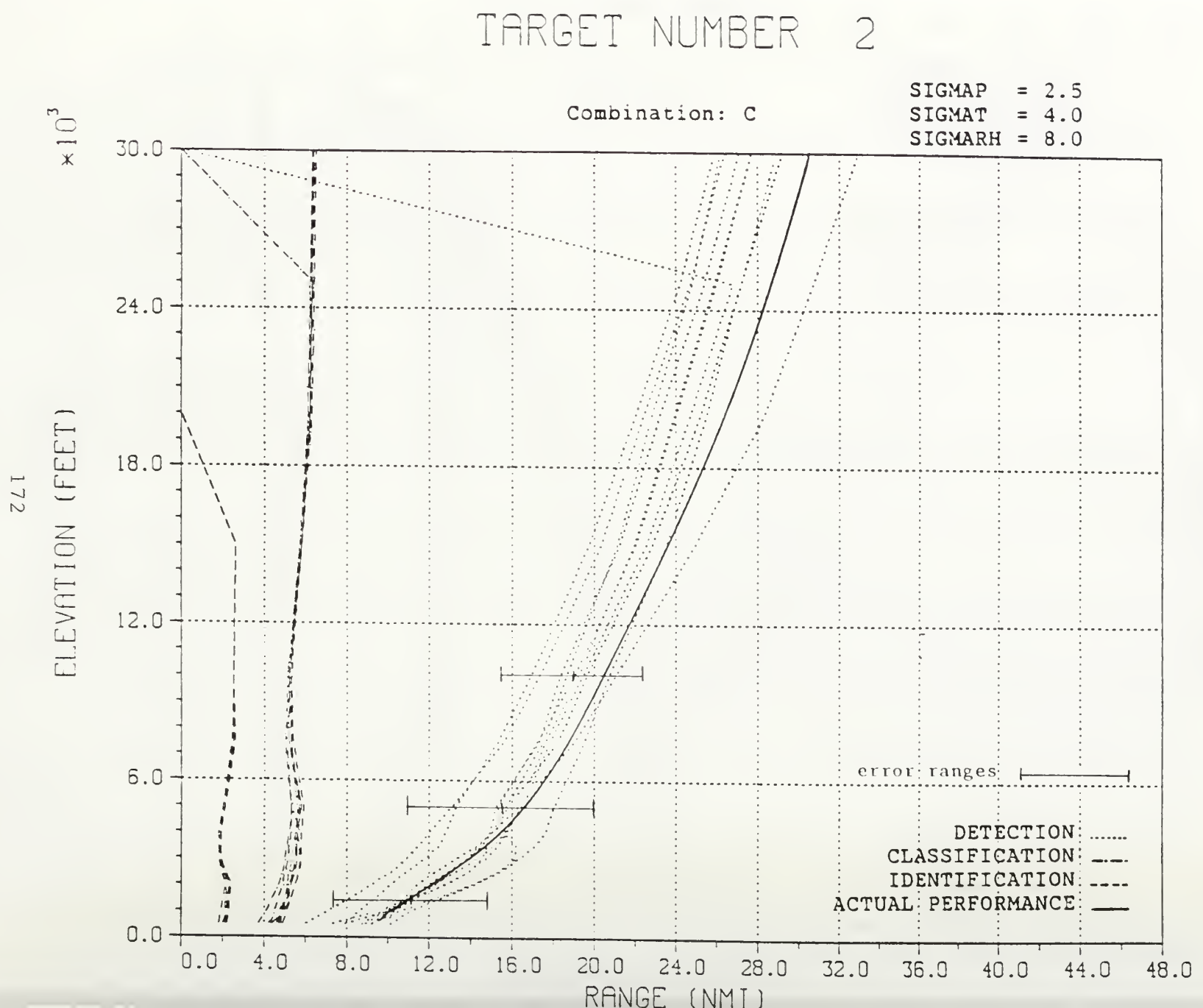

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 2

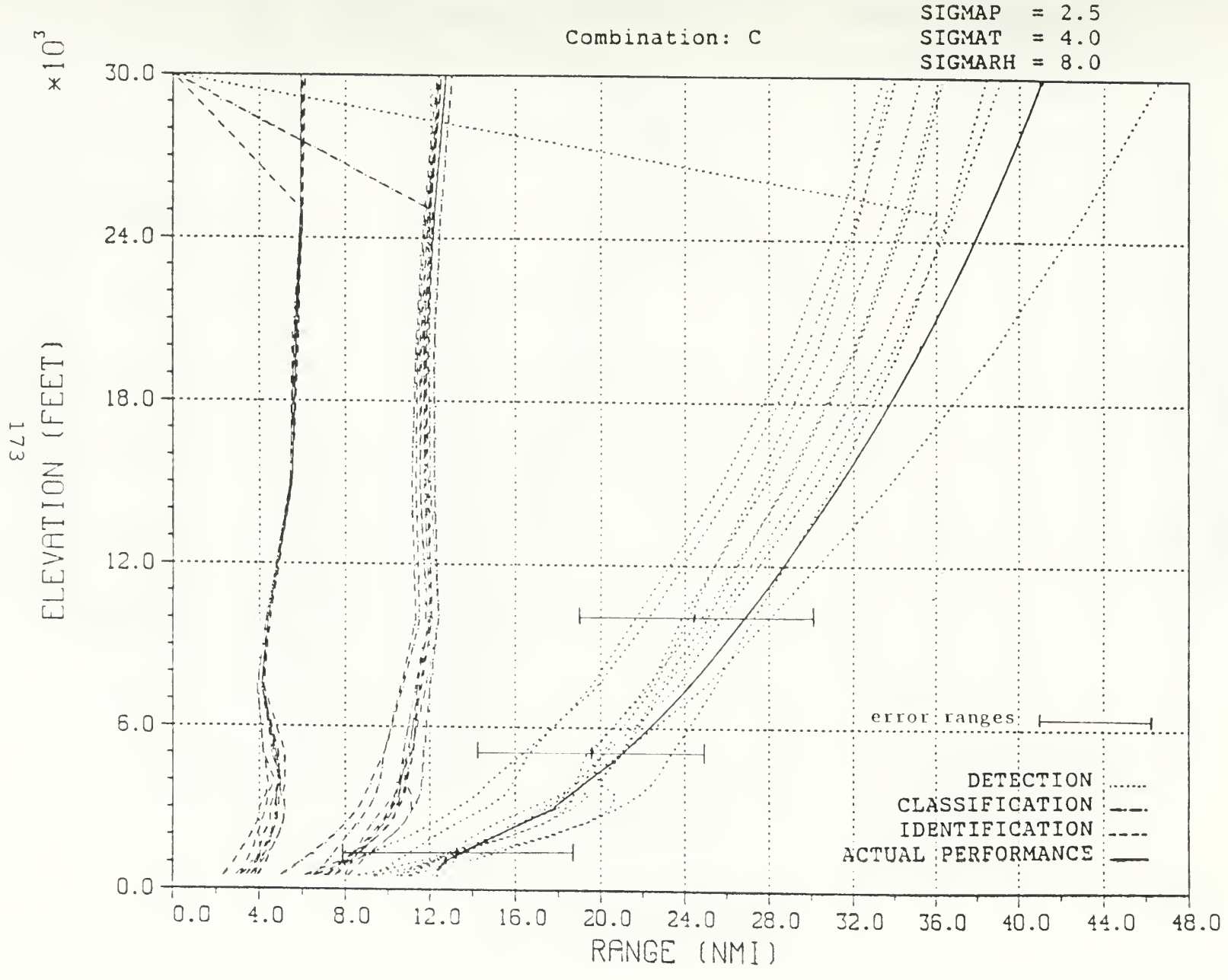

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

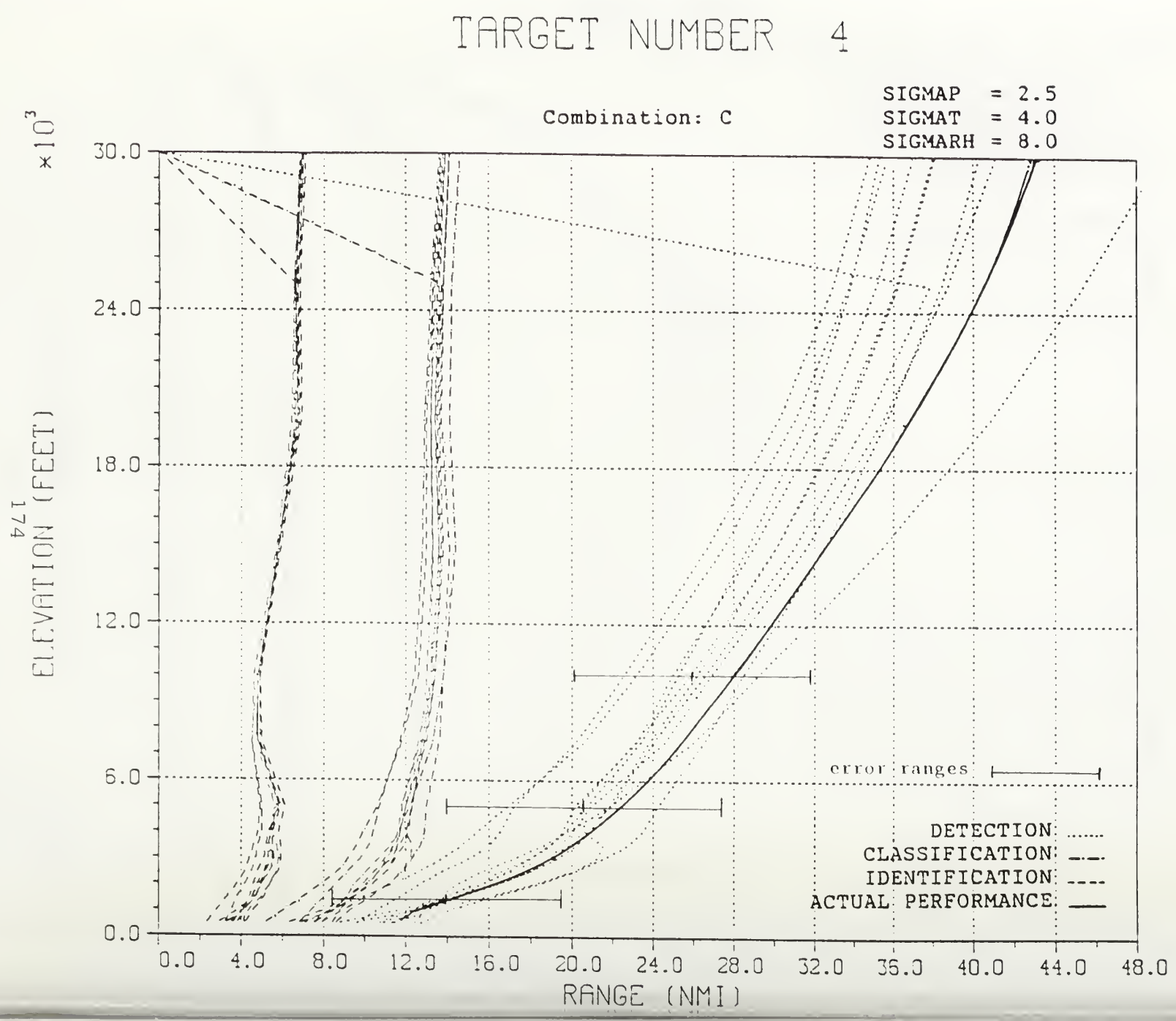

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

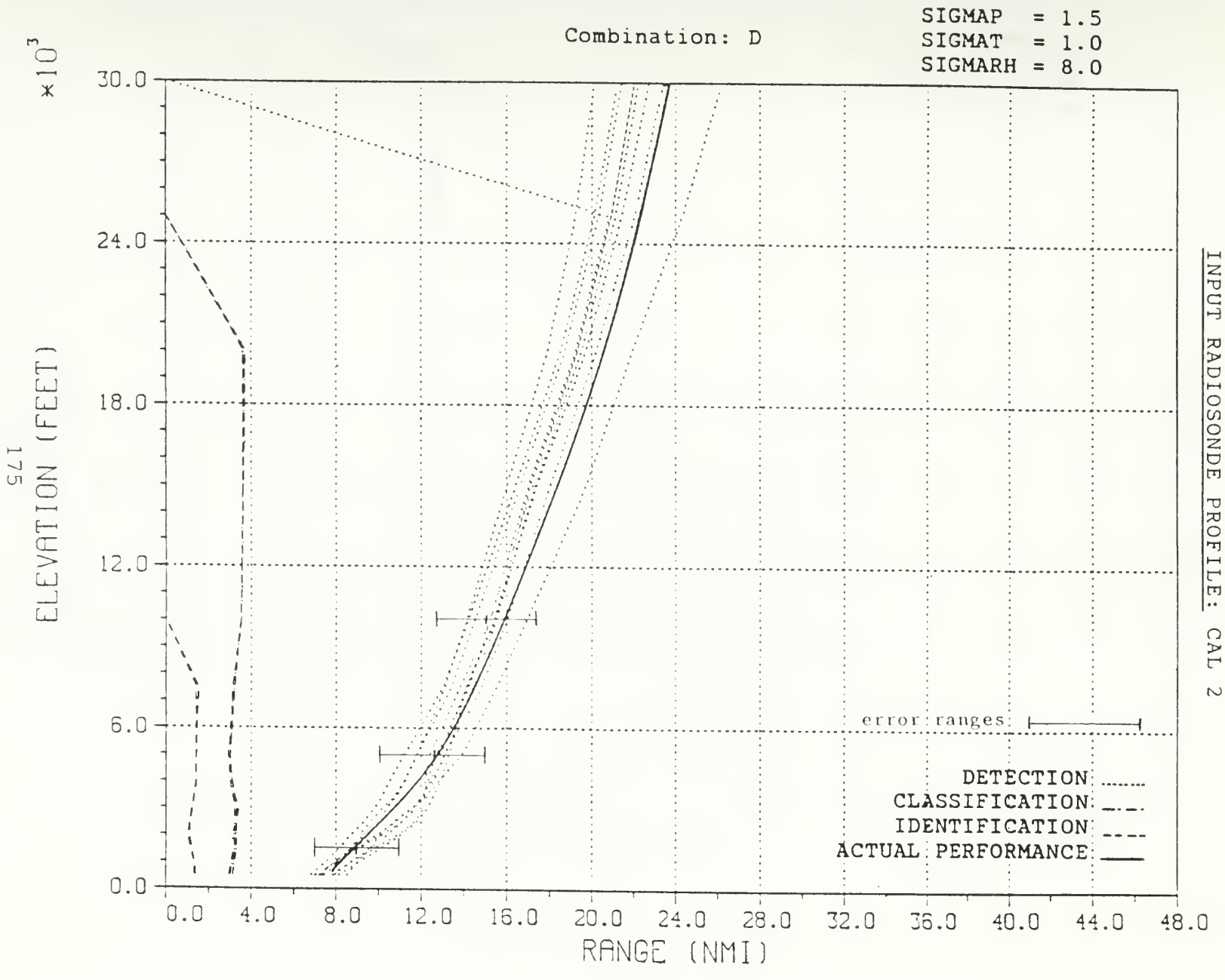

TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

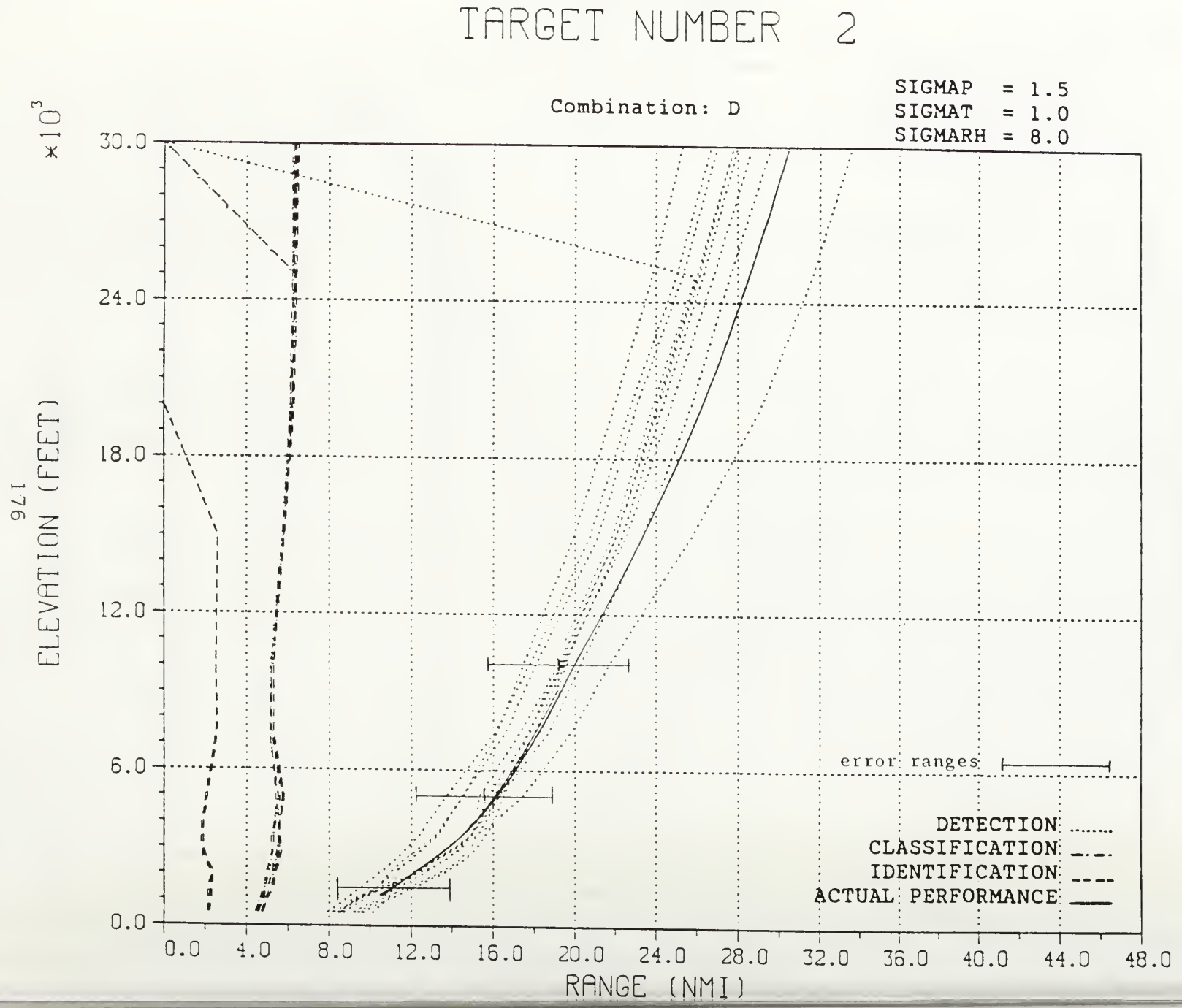

TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 2

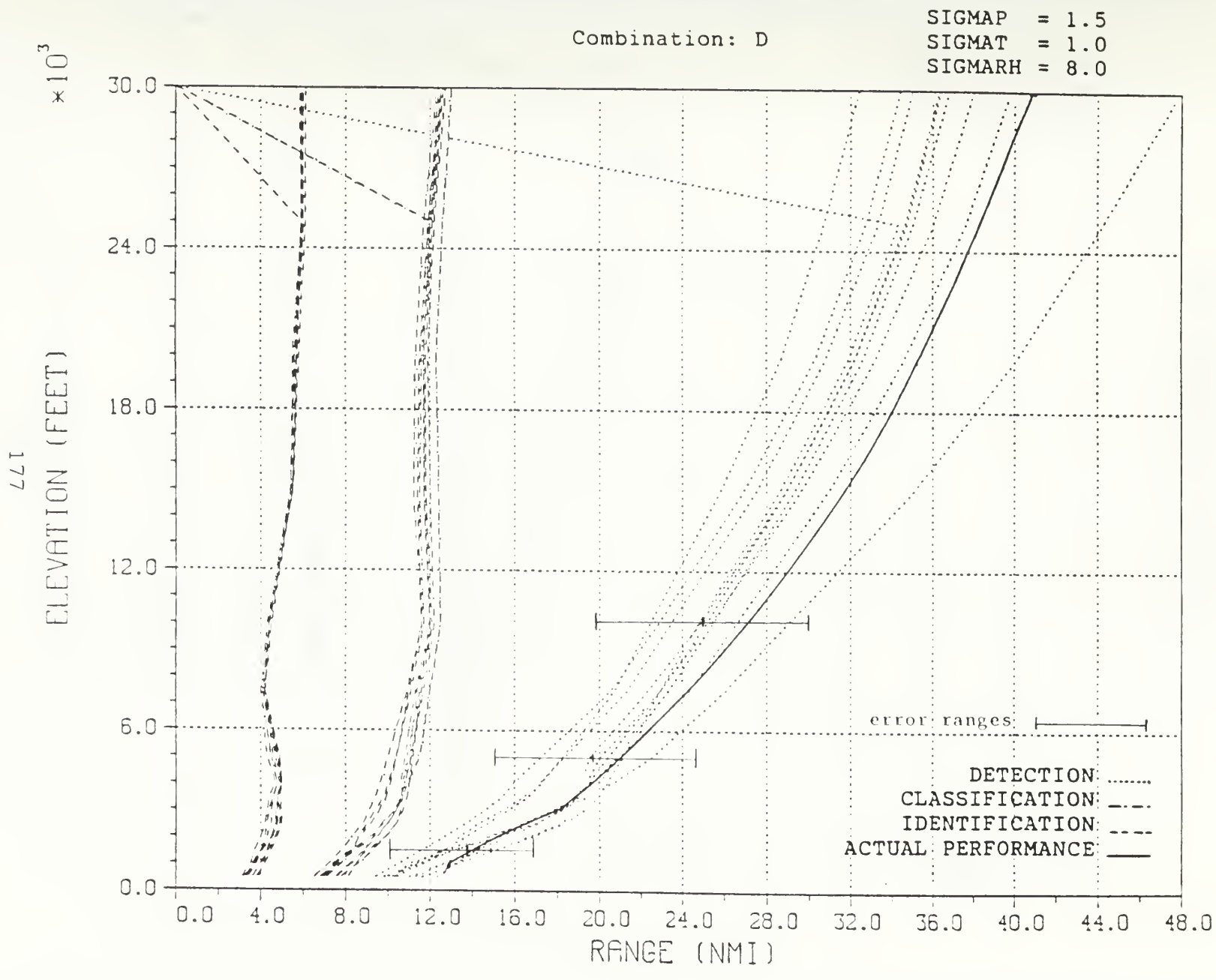

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

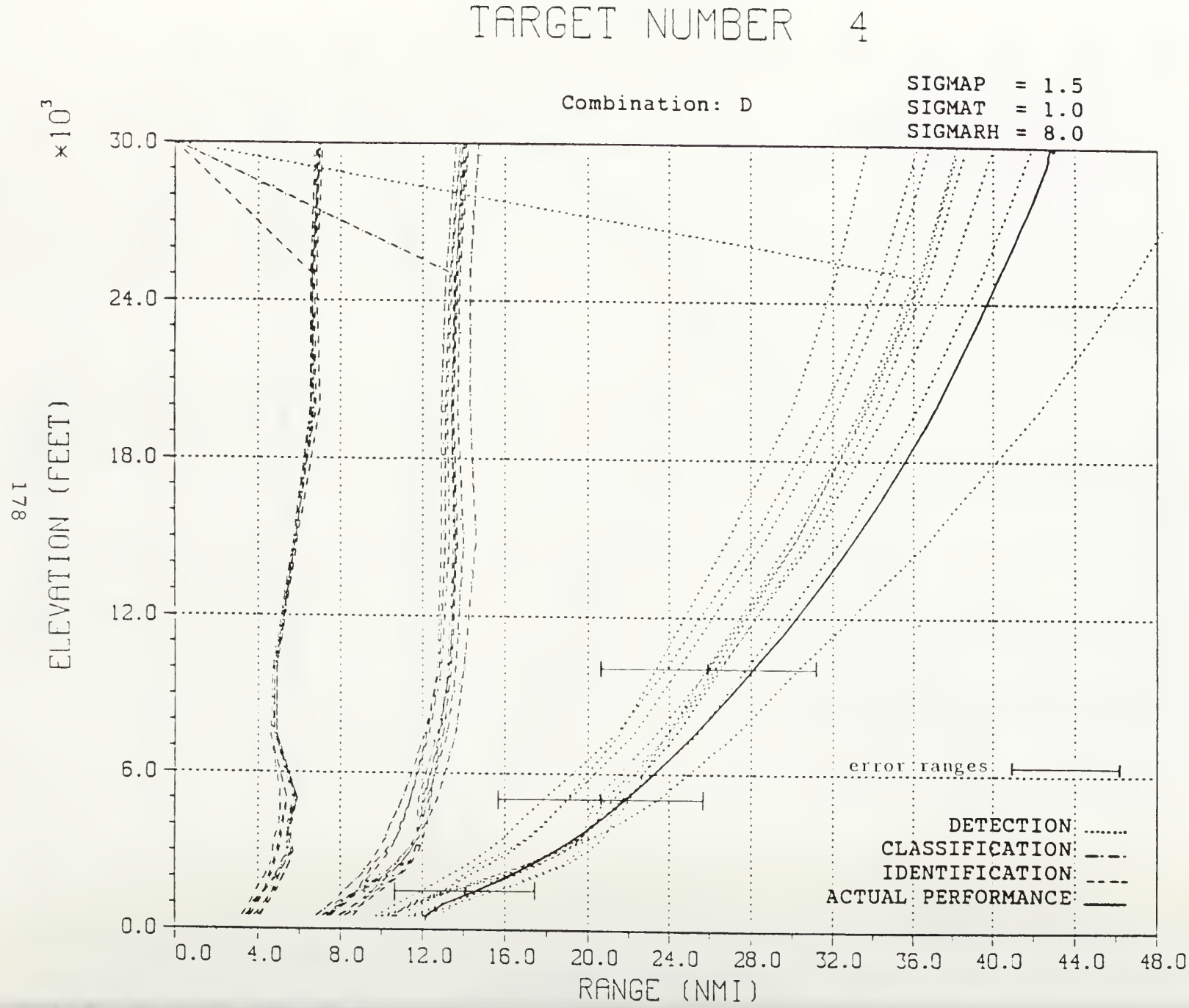

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

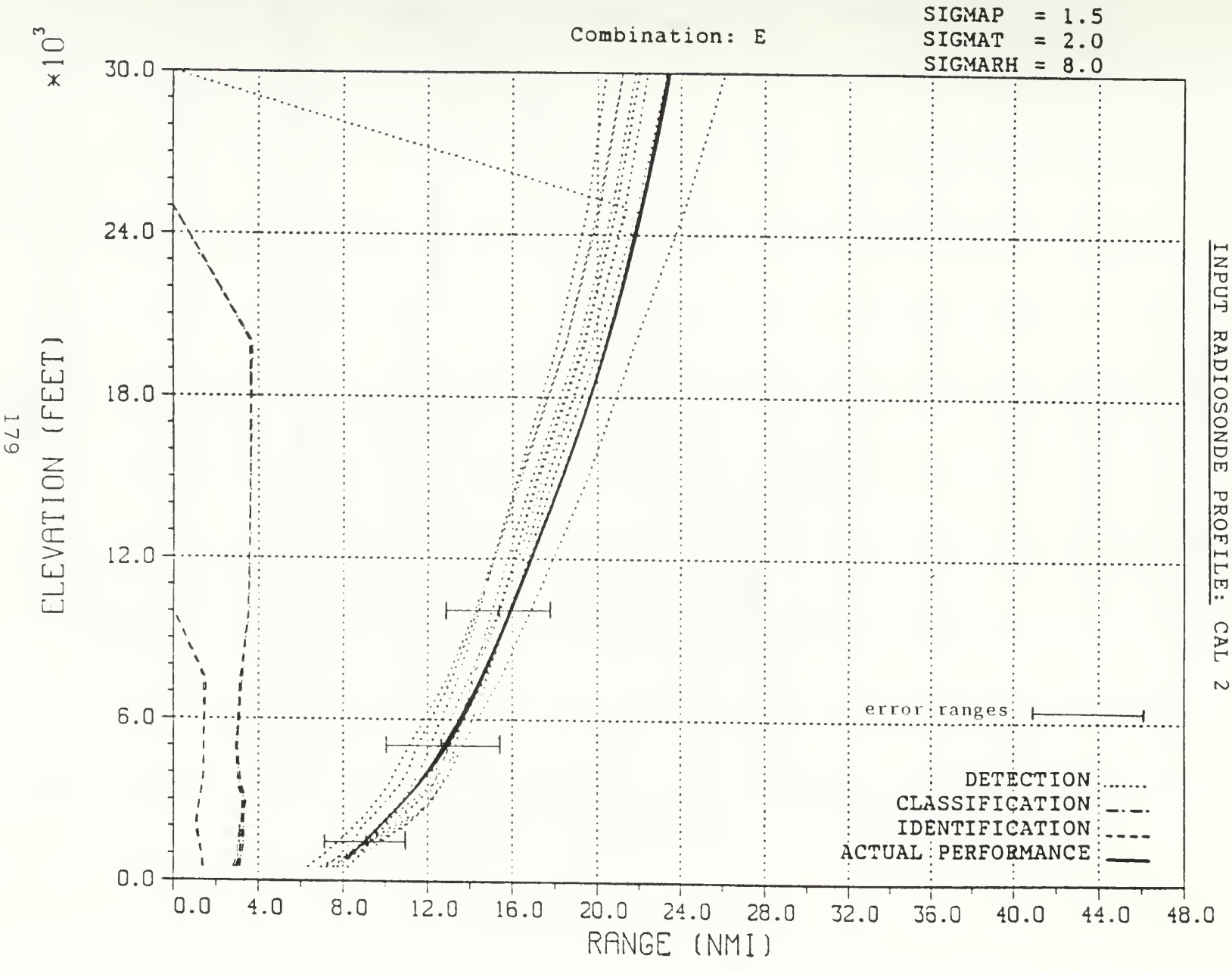

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 2


TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

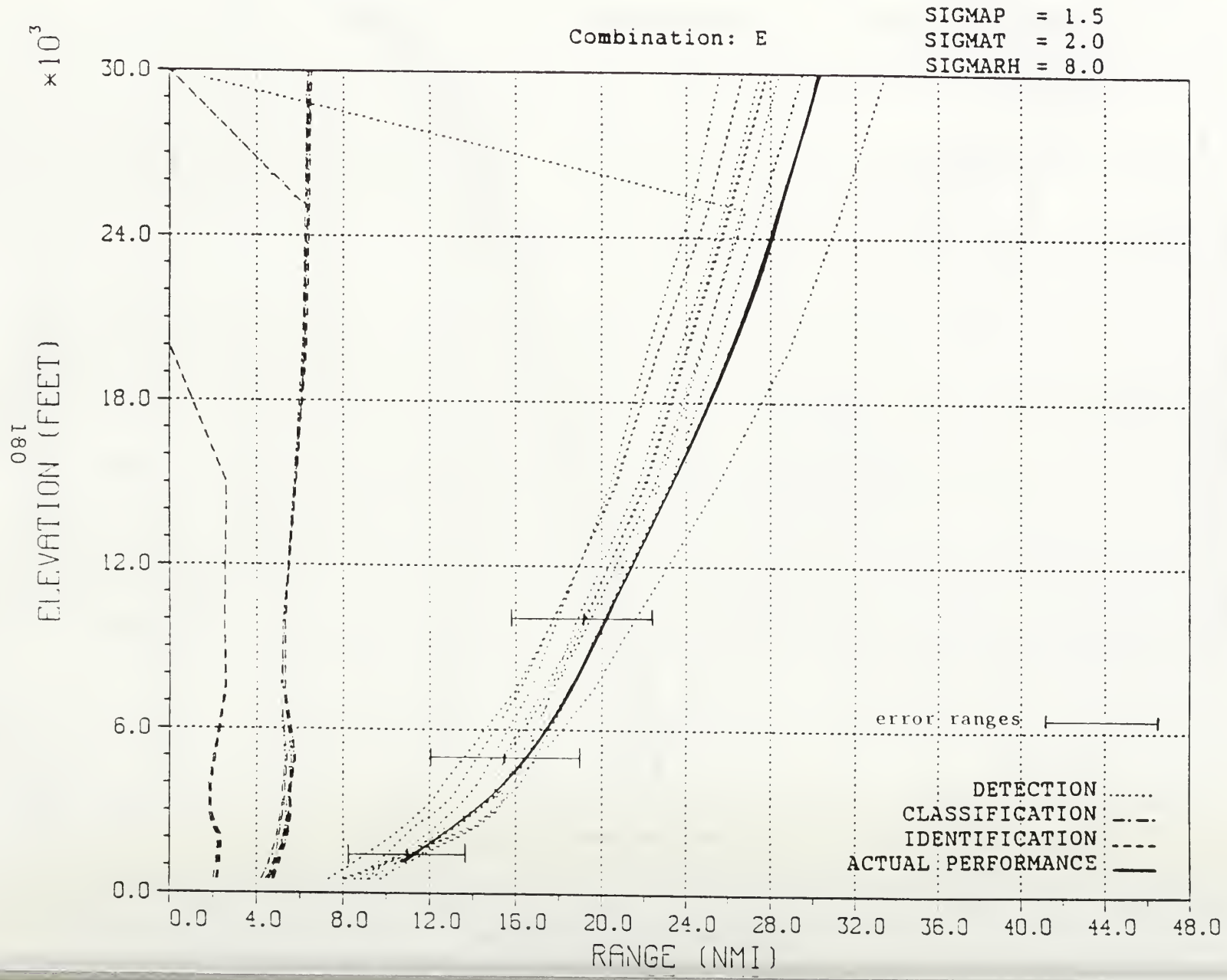

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

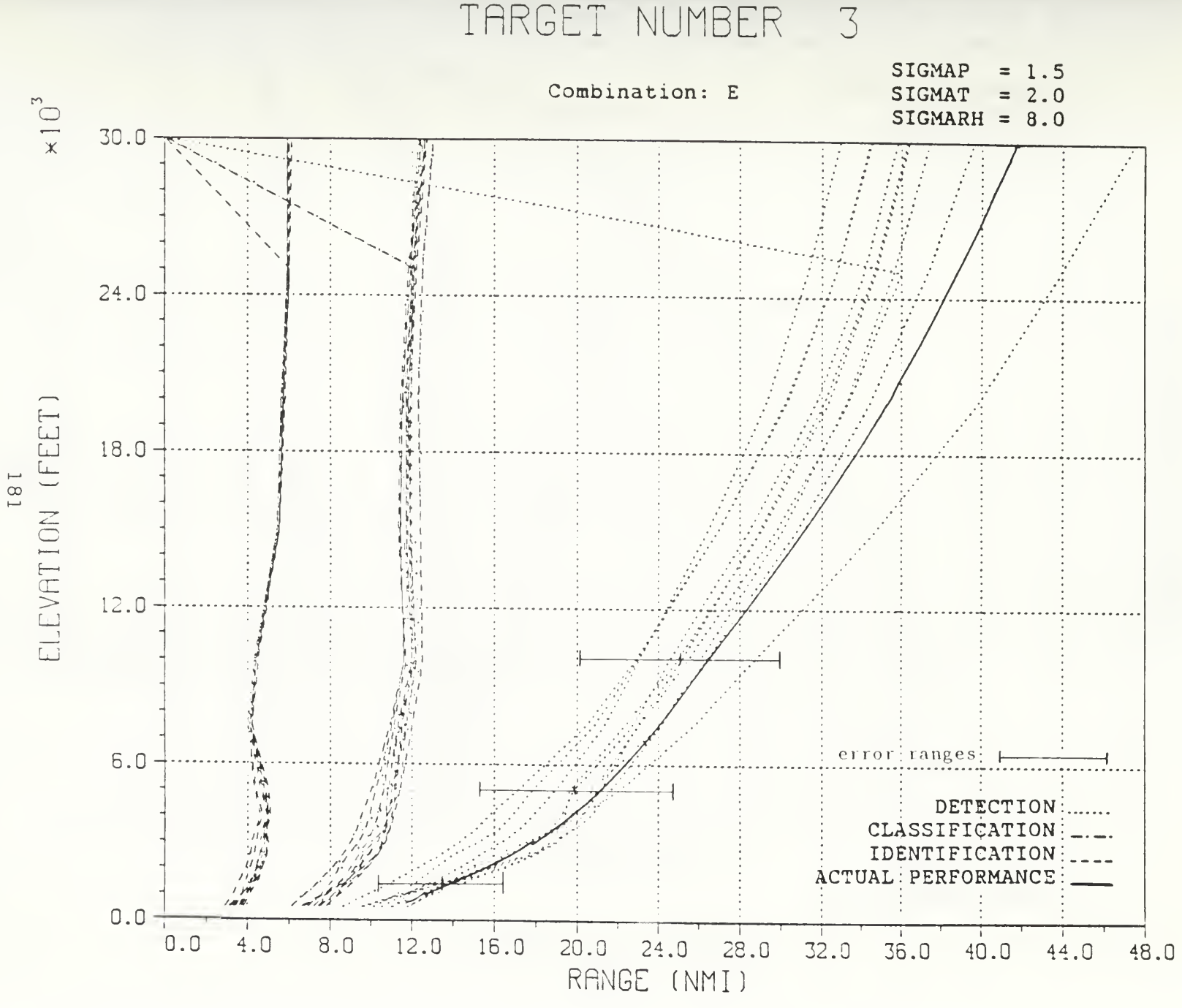

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

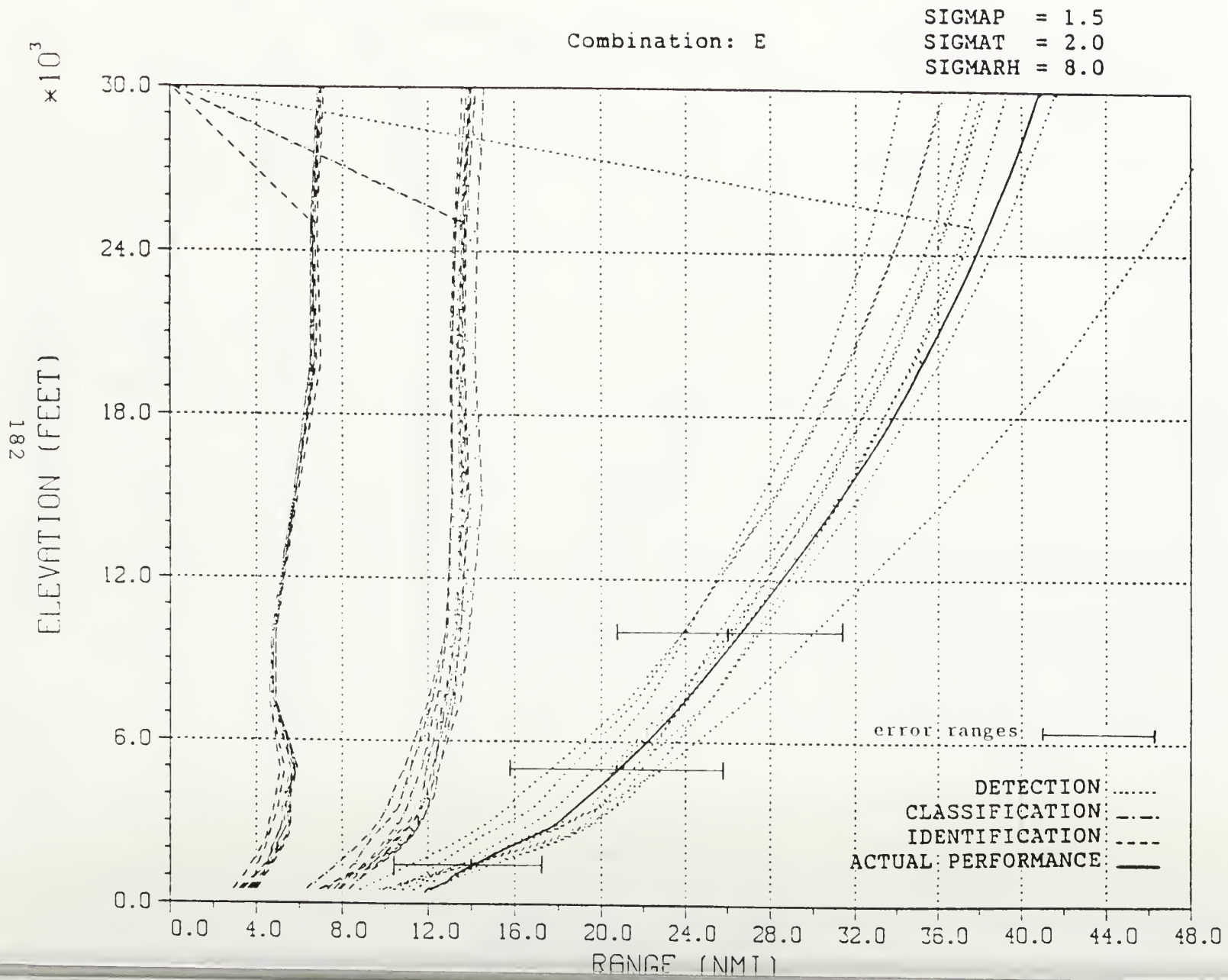
TARGET NUMBER 1

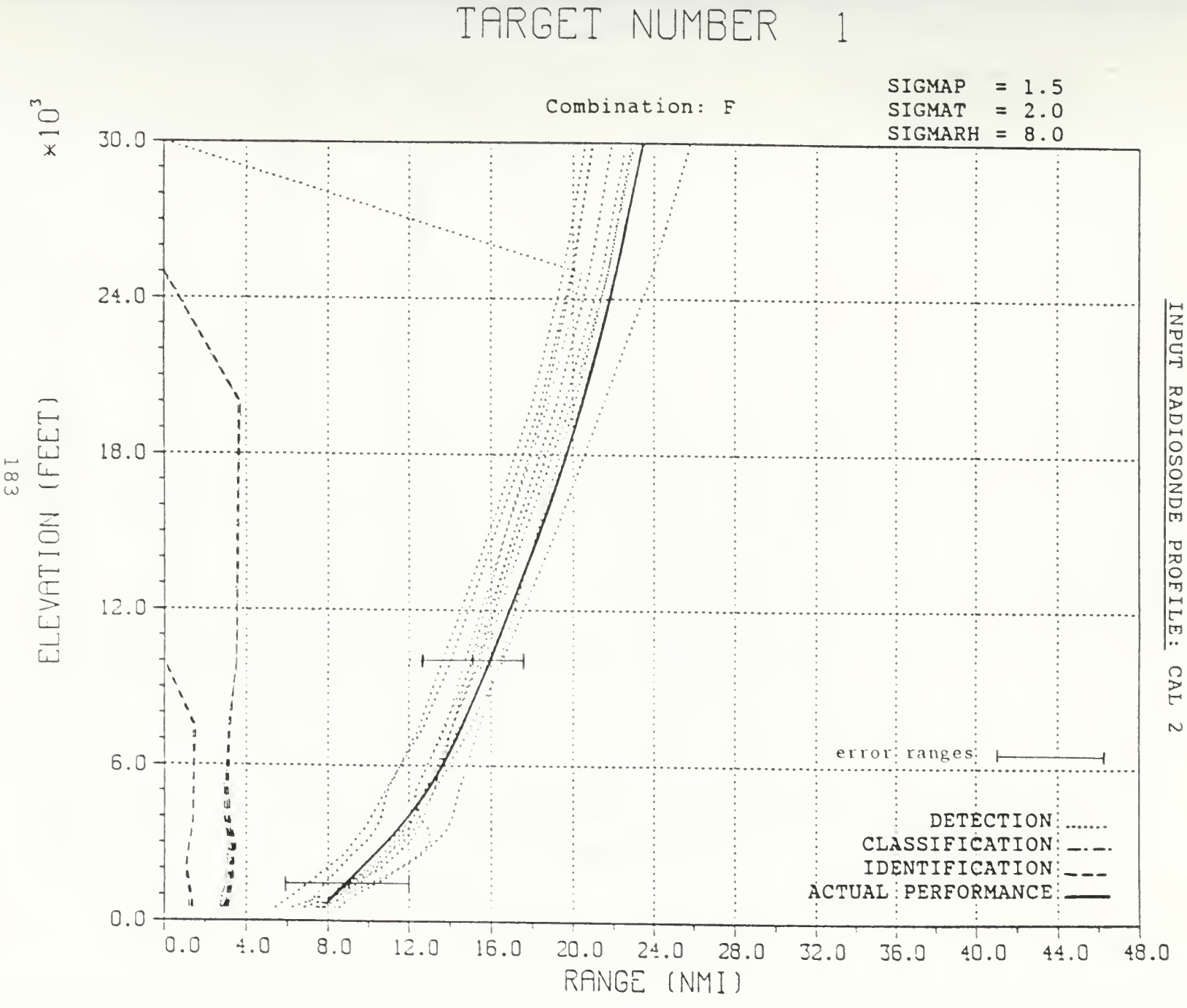


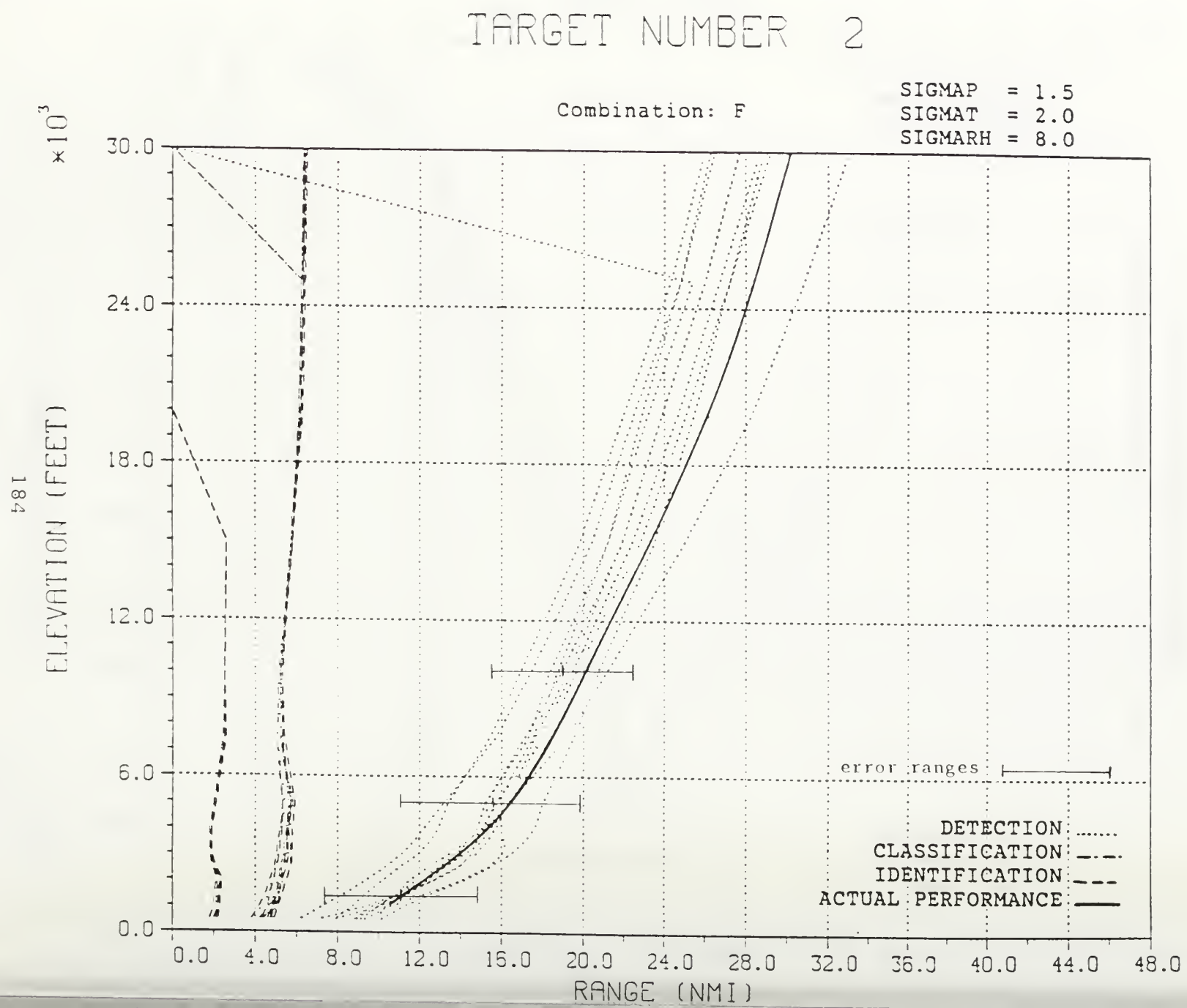
TARGET NUMBER 2

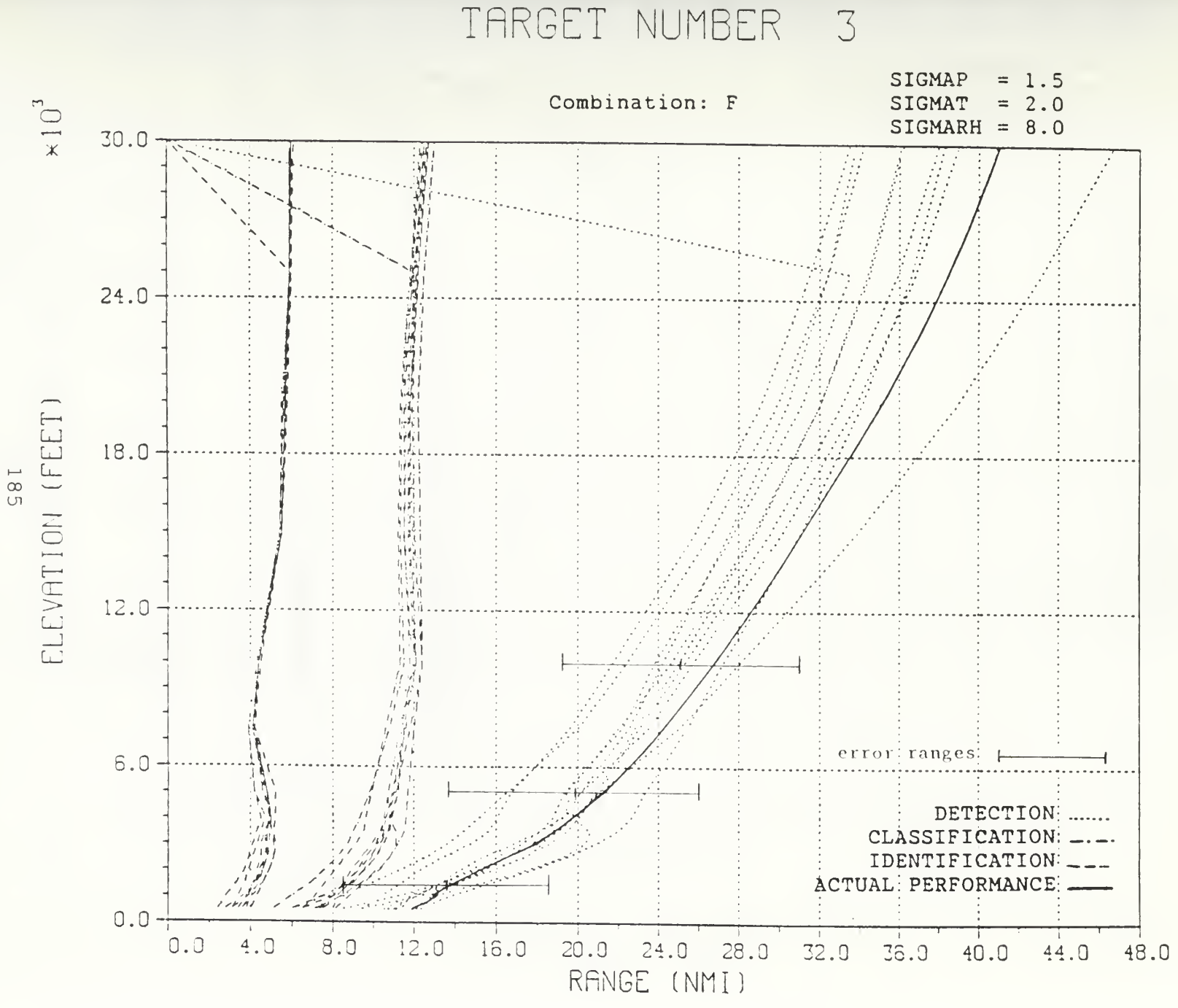


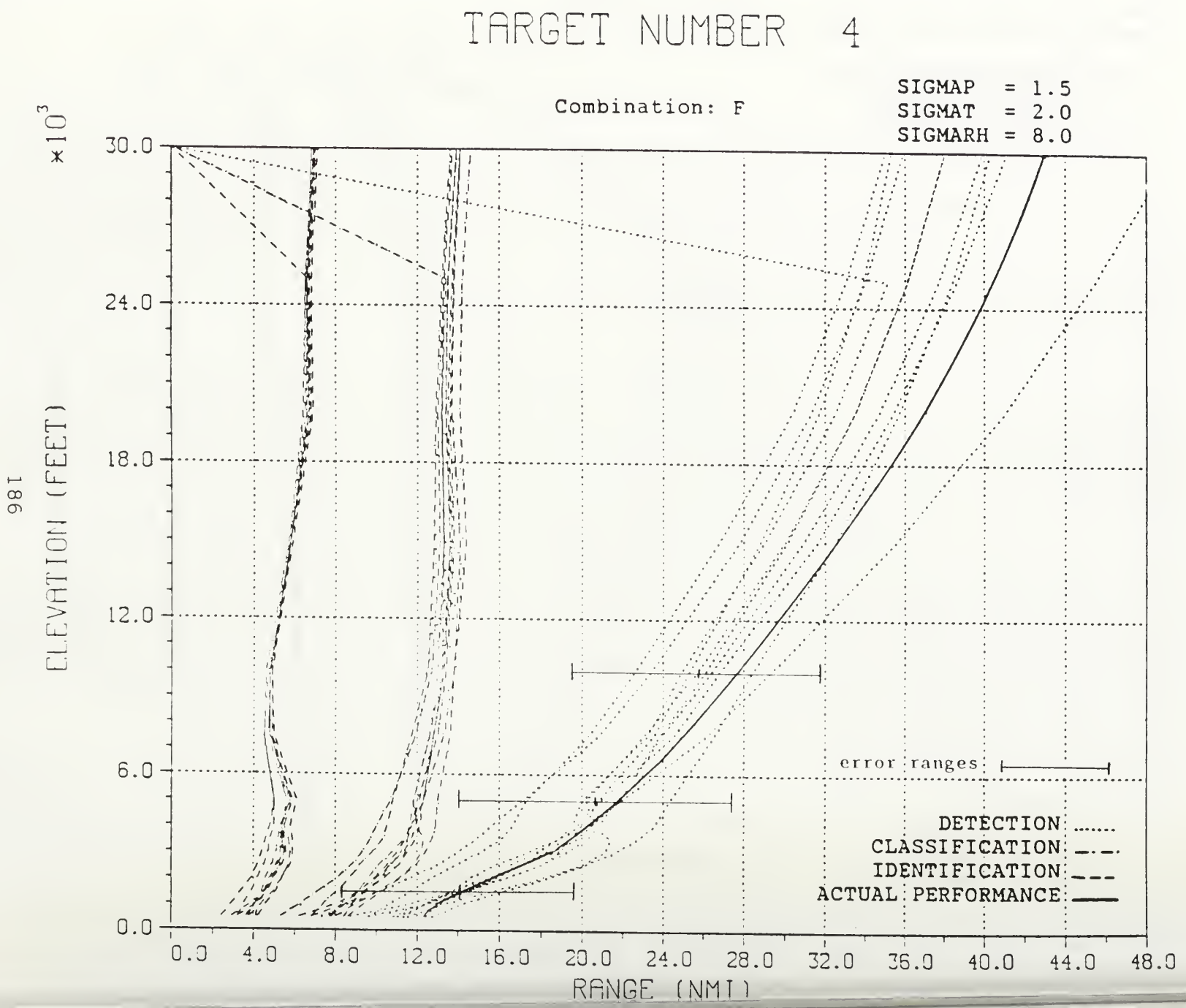

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

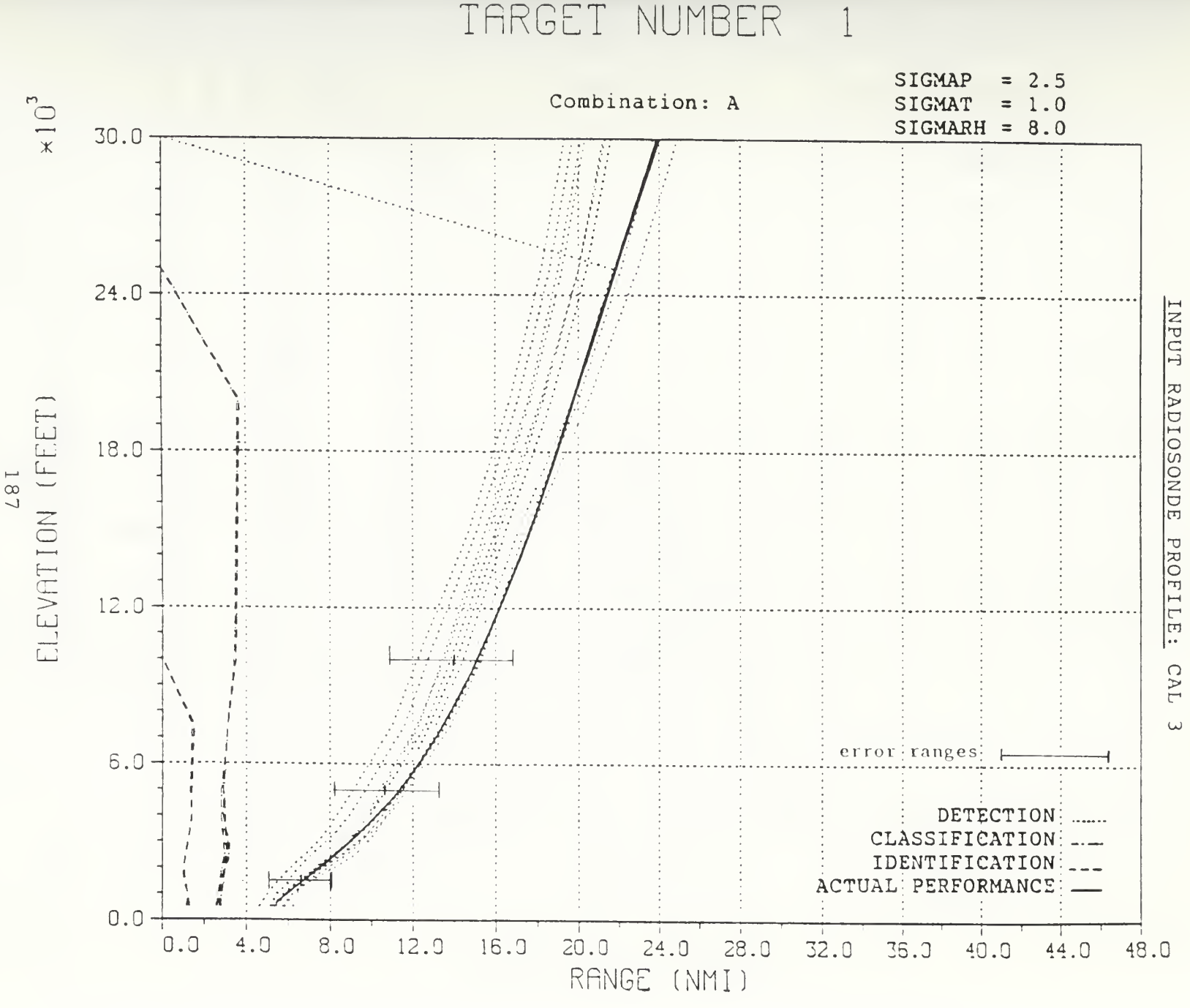

TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 2


TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION -.-.-
IDENTIFICATION ---
ACTUAL PERFORMANCE ——


TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._._
IDENTIFICATION _ _ _
ACTUAL PERFORMANCE ——


TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 3
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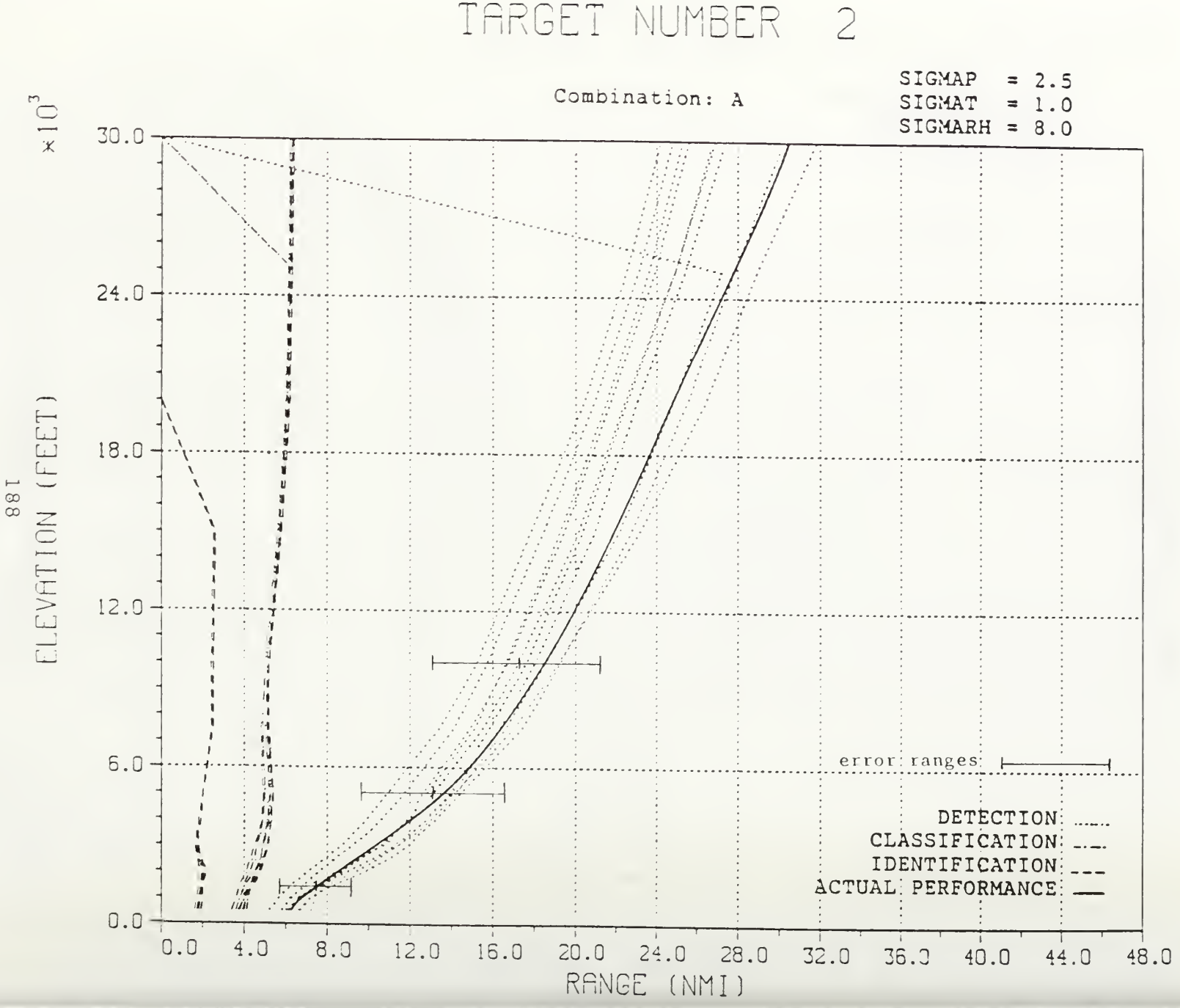
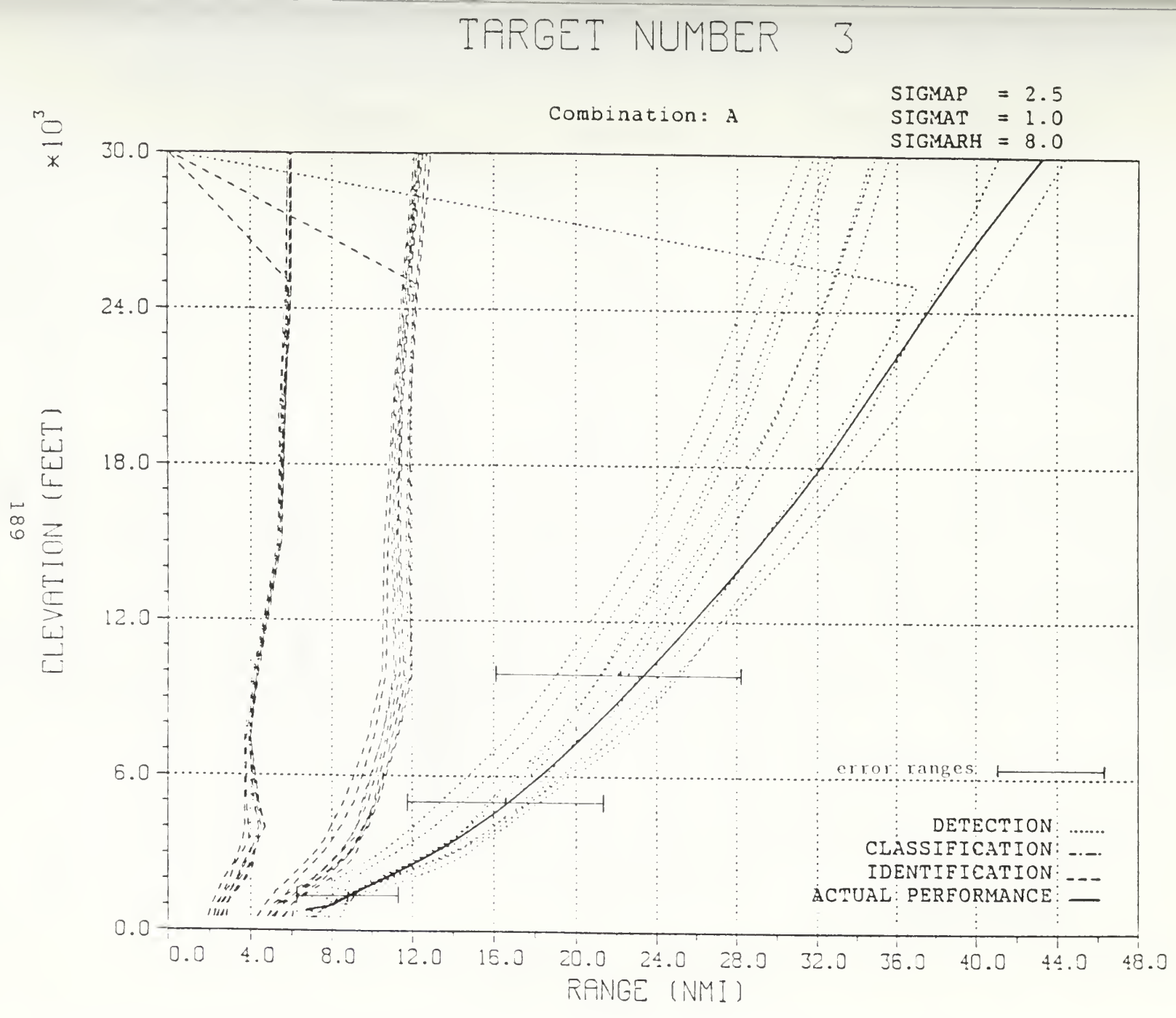
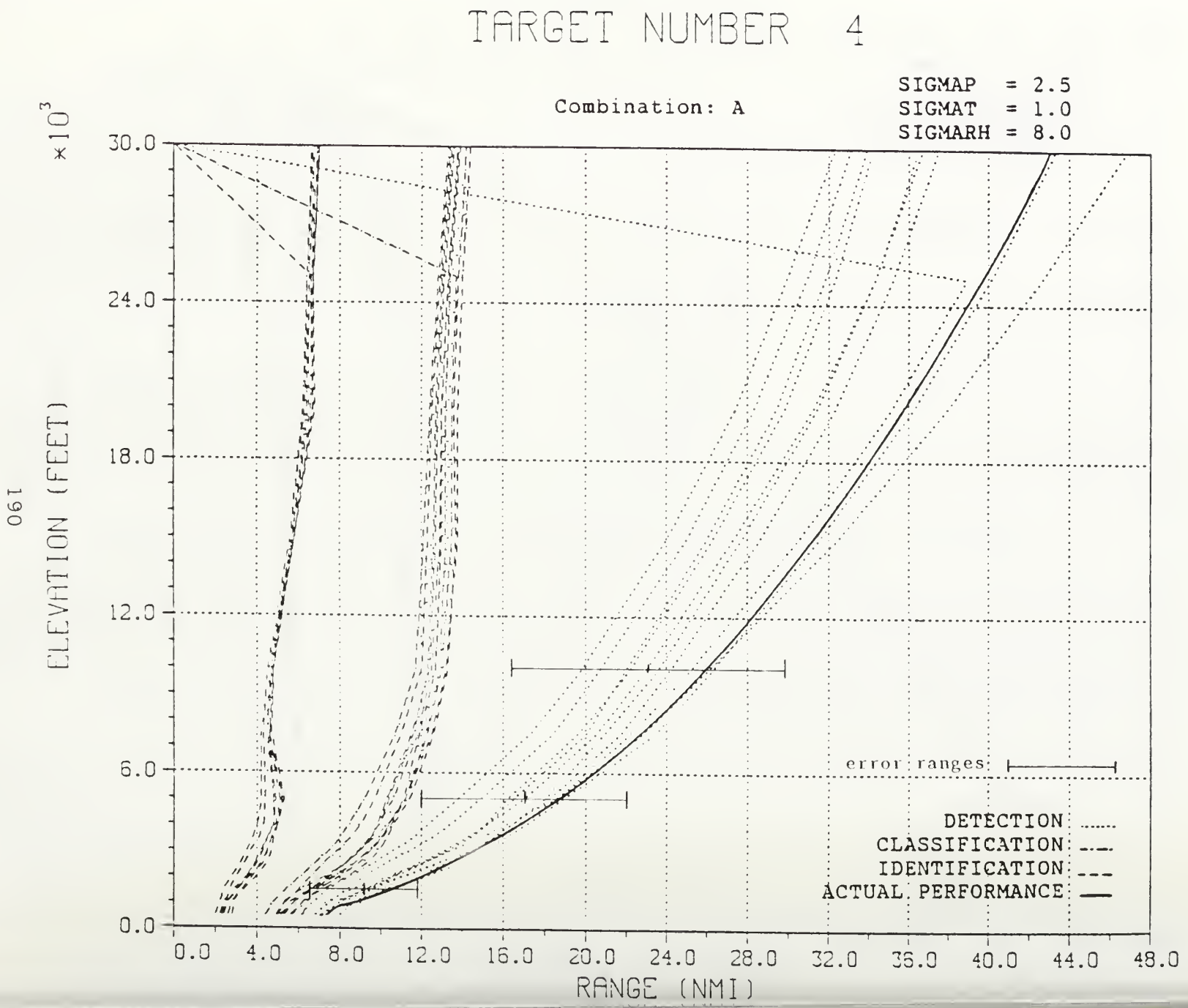
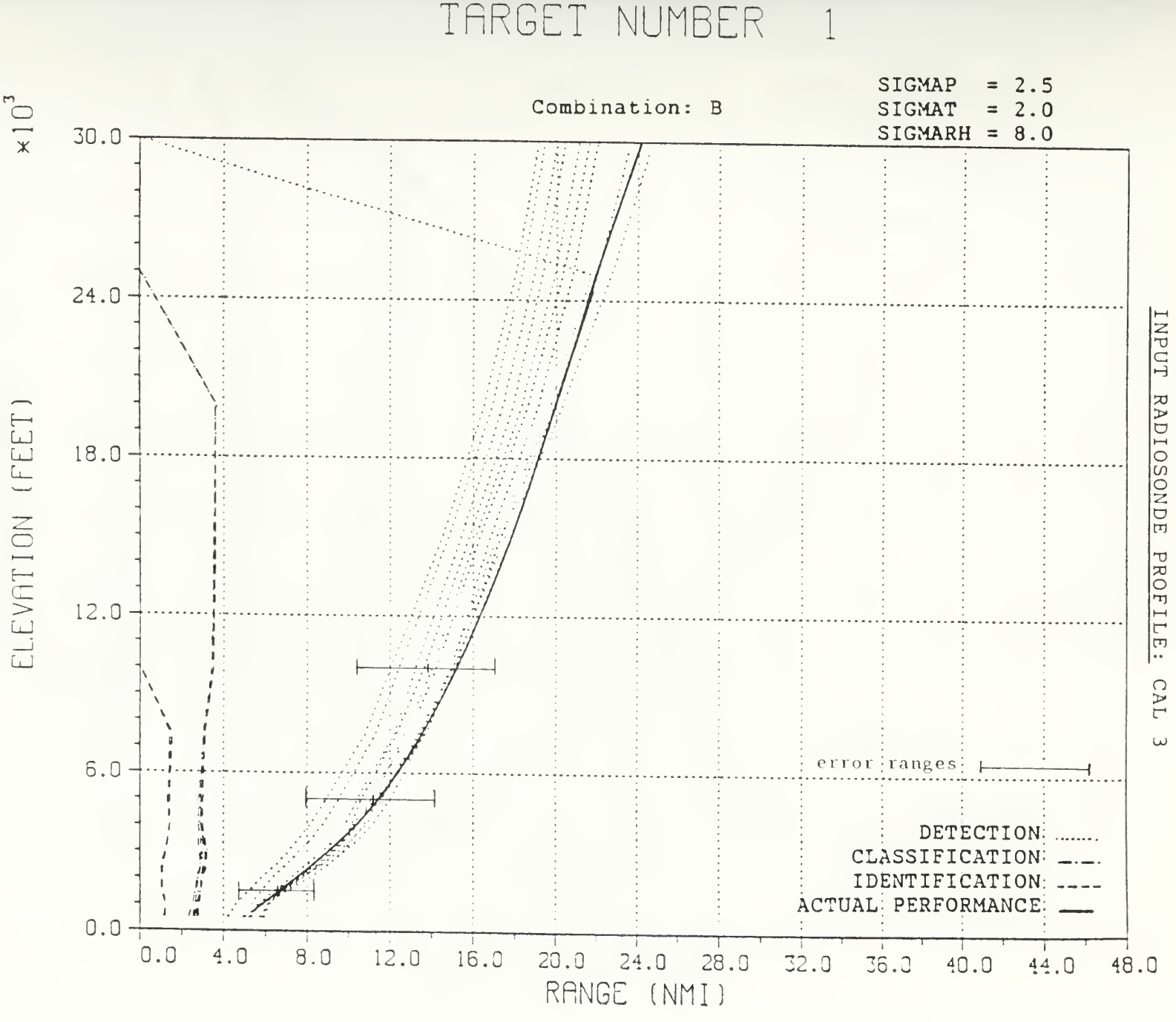
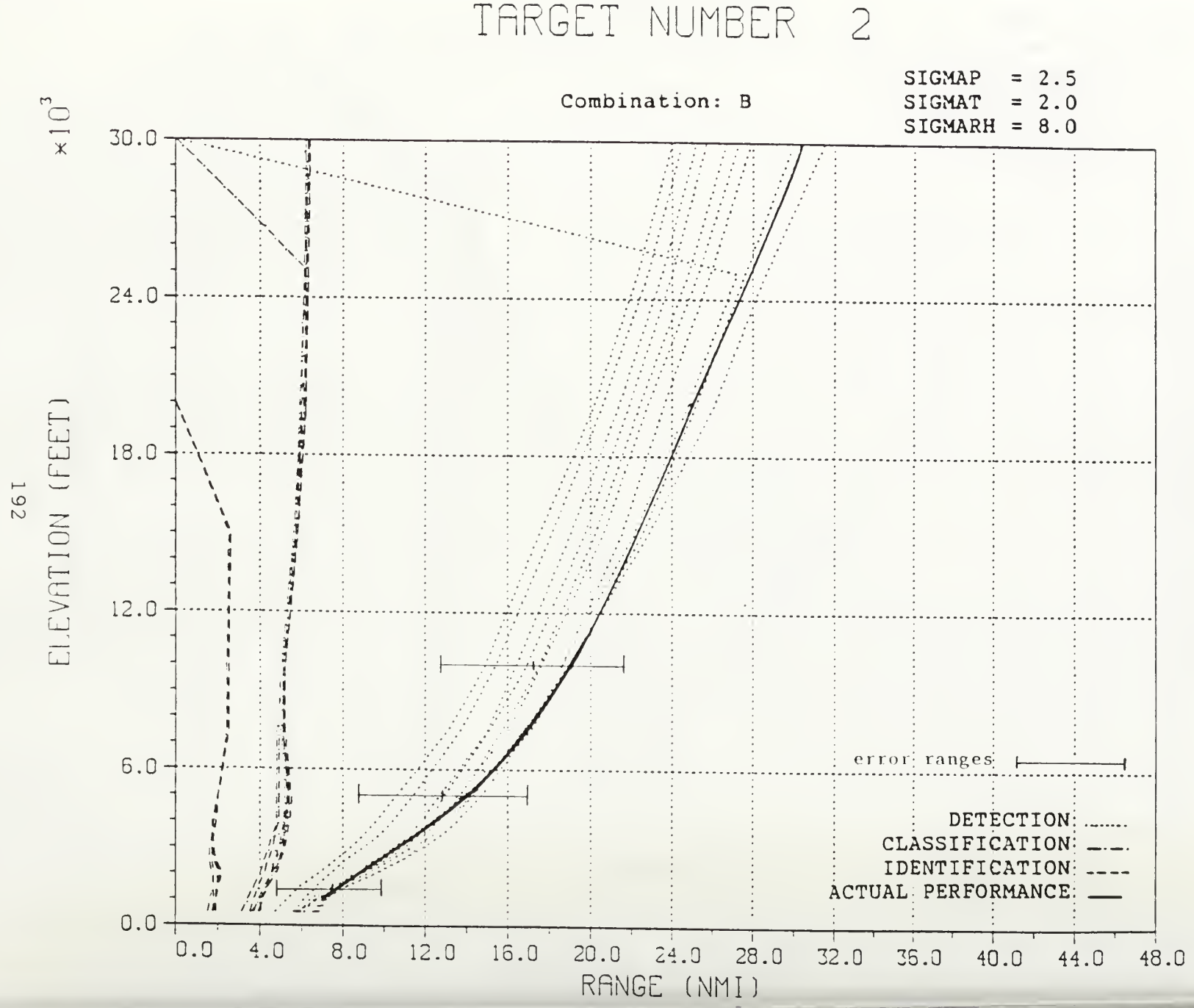
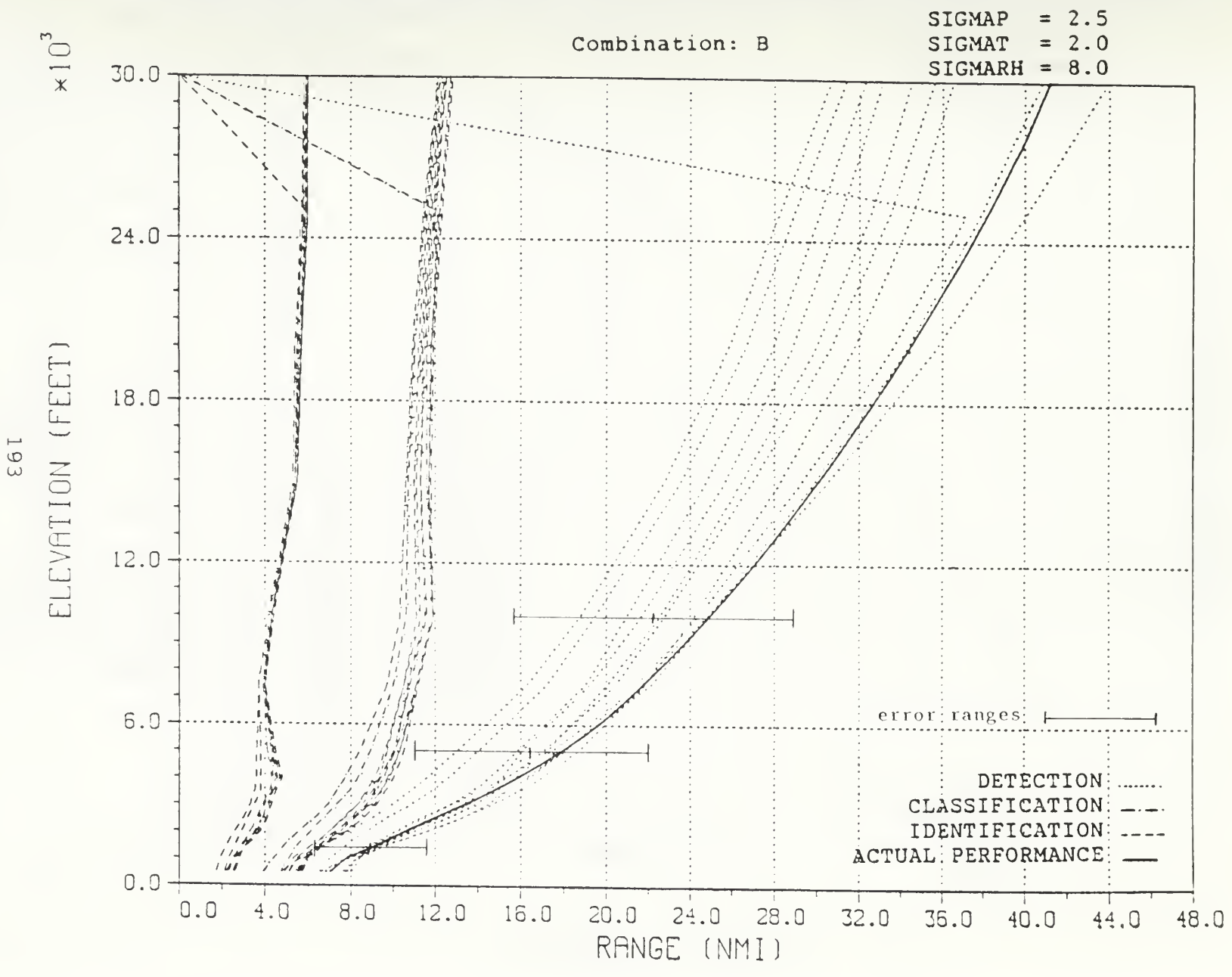

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

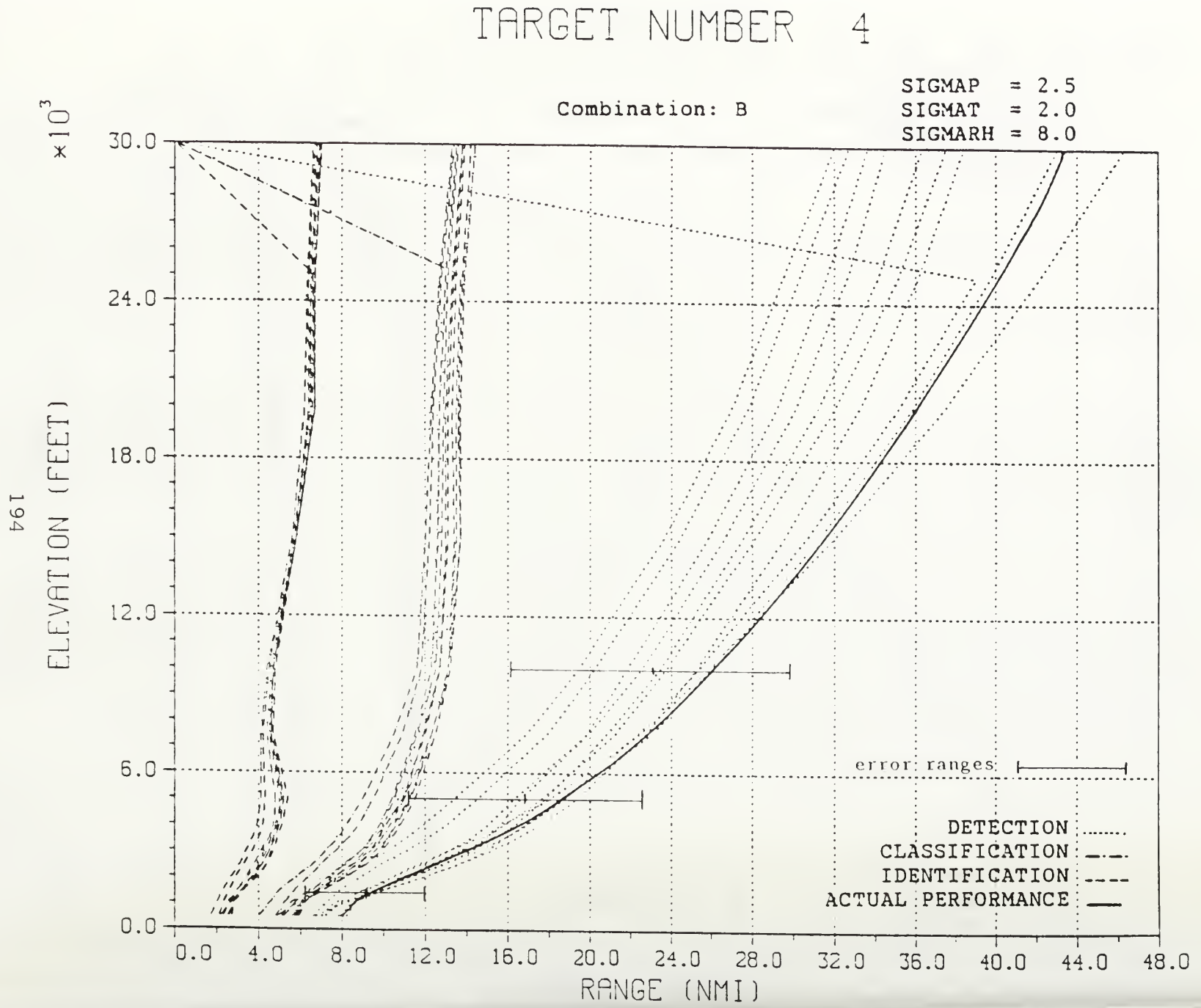

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION -.-.-
IDENTIFICATION ---
ACTUAL PERFORMANCE ——

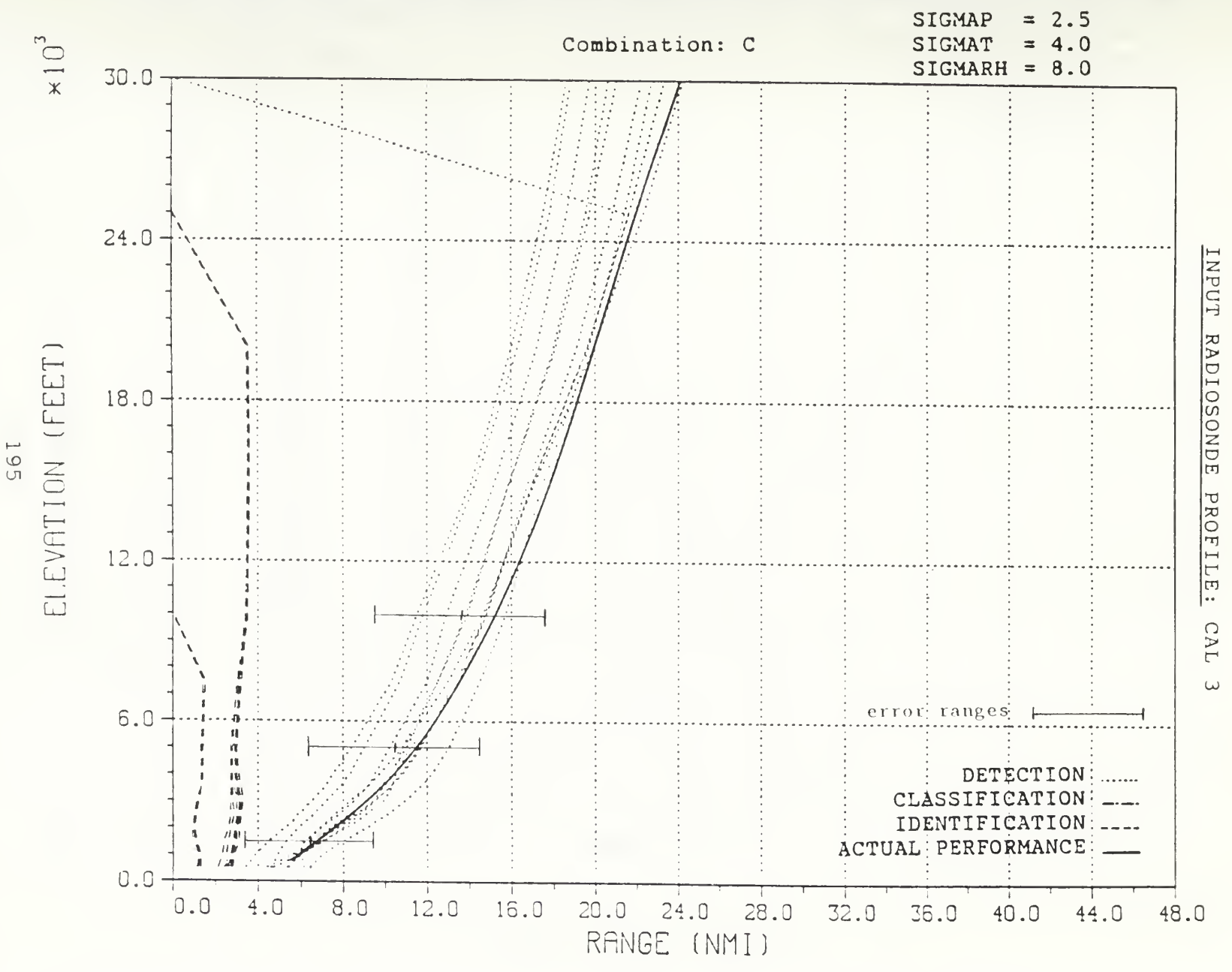

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

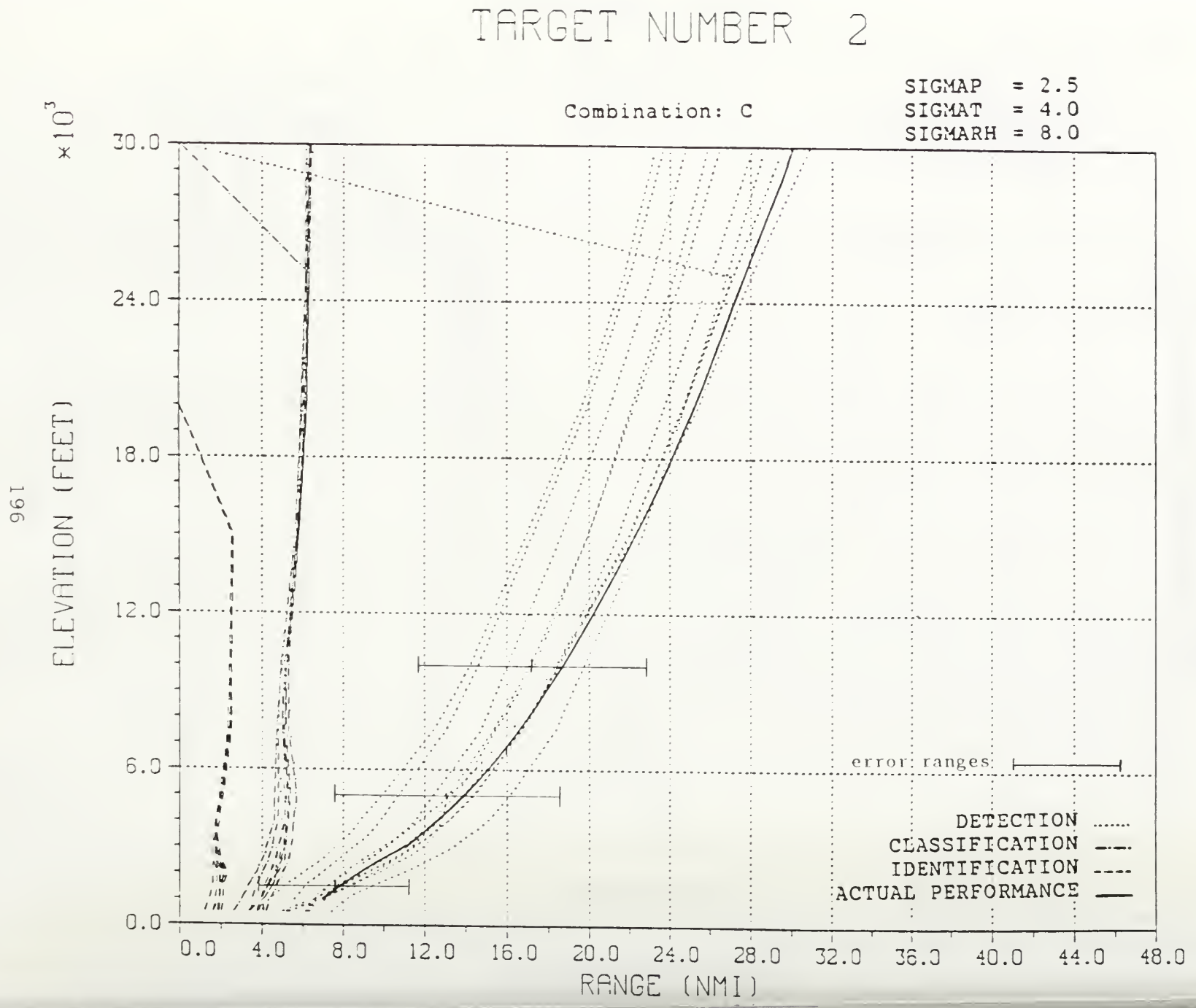

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 3

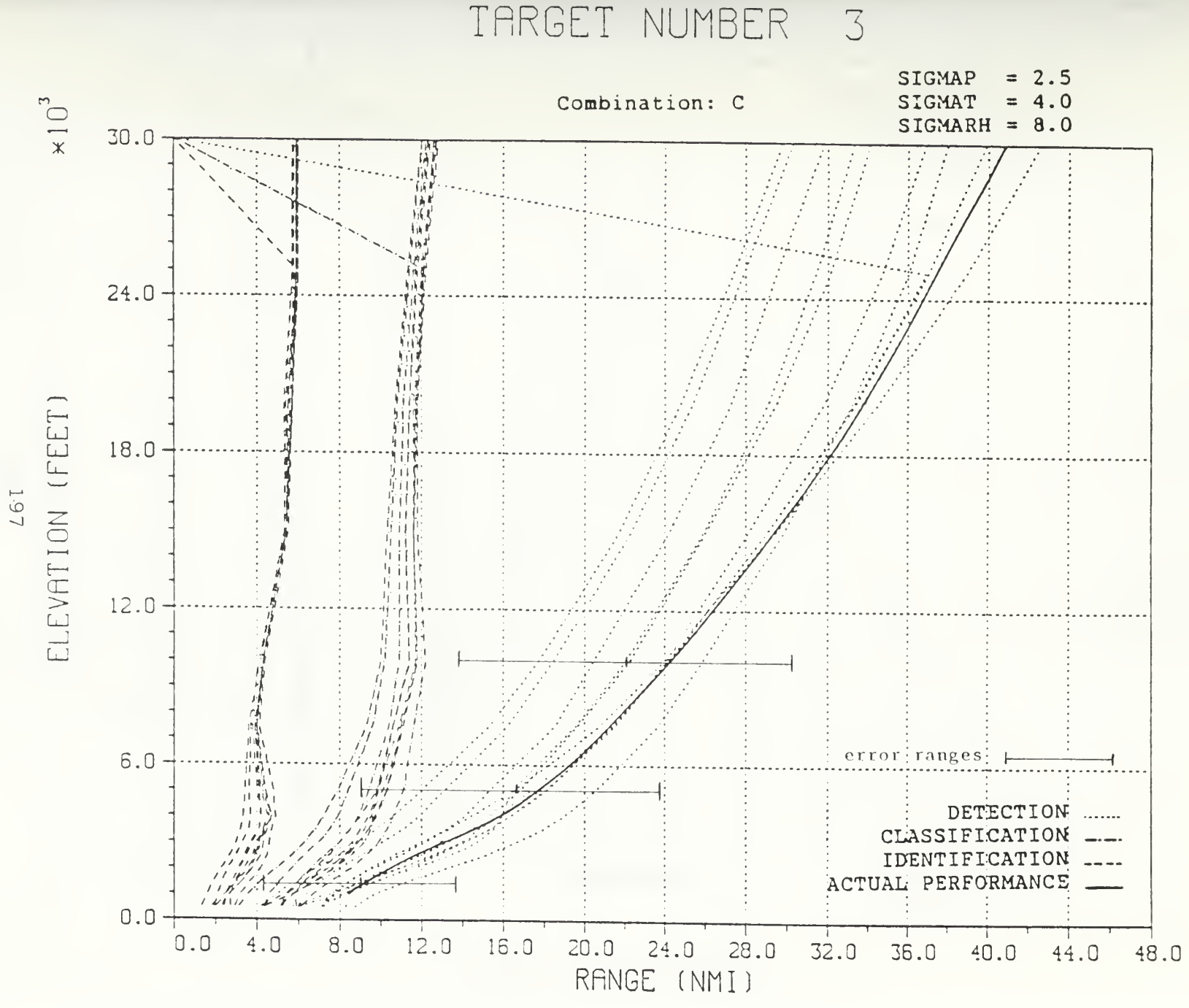

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

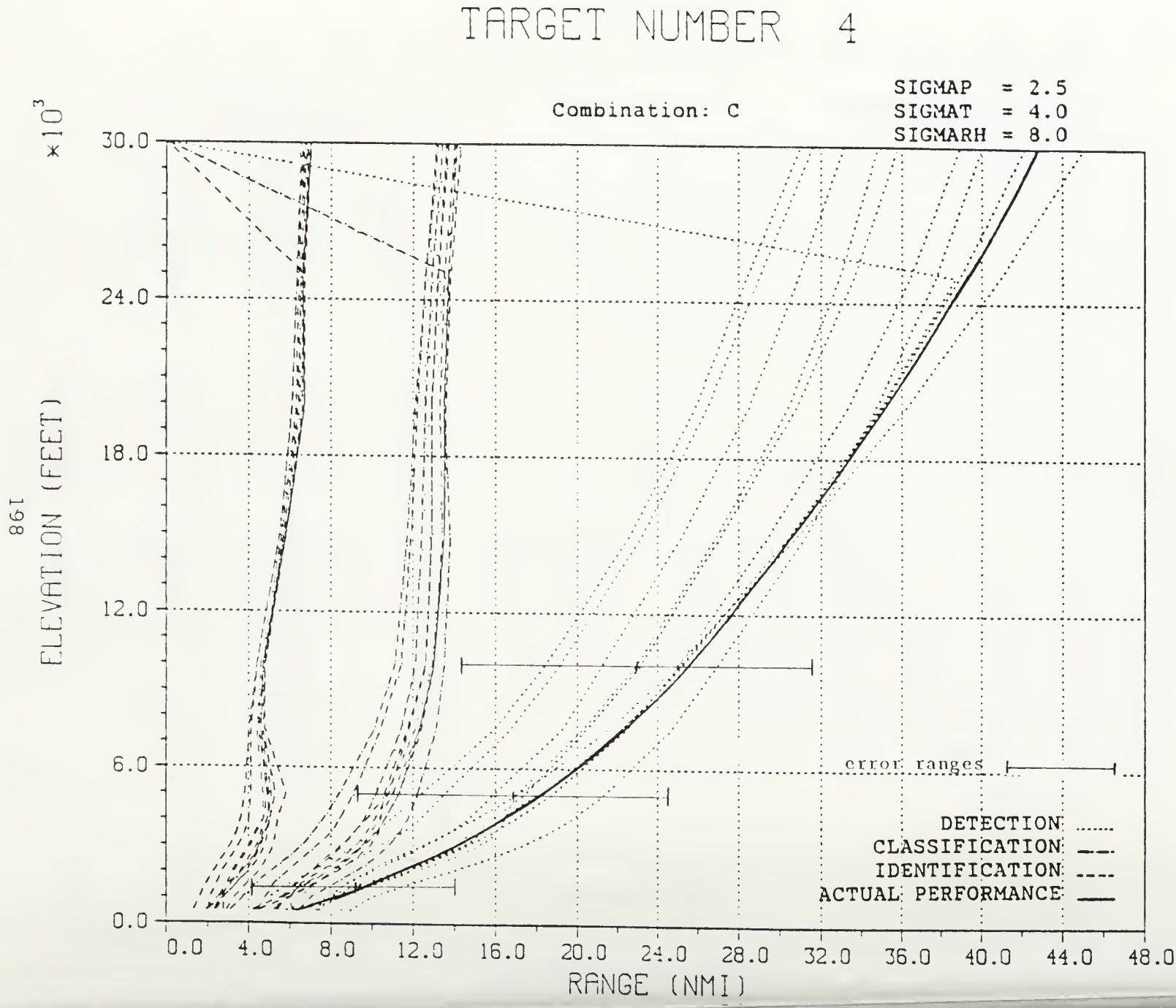

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

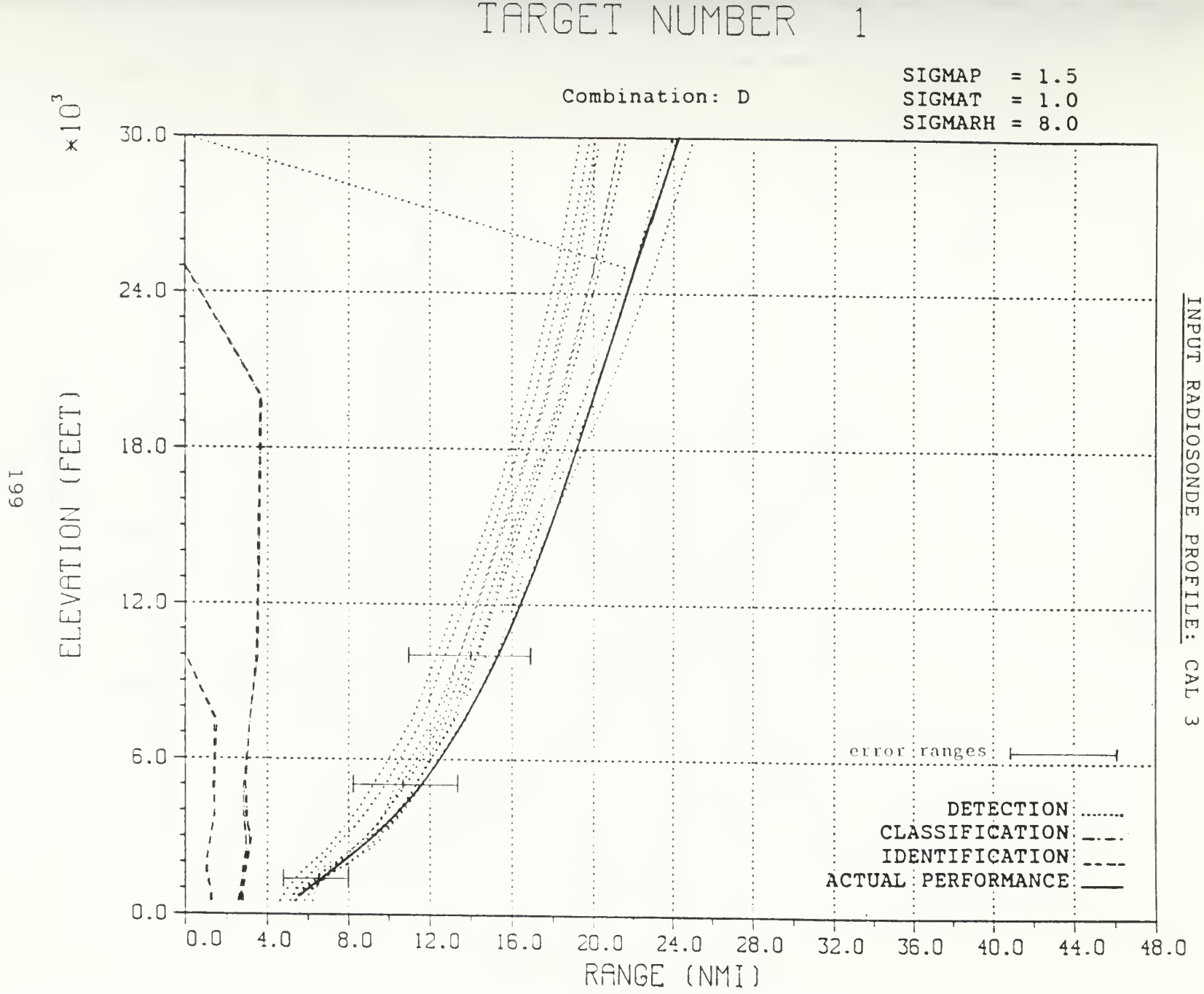

TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

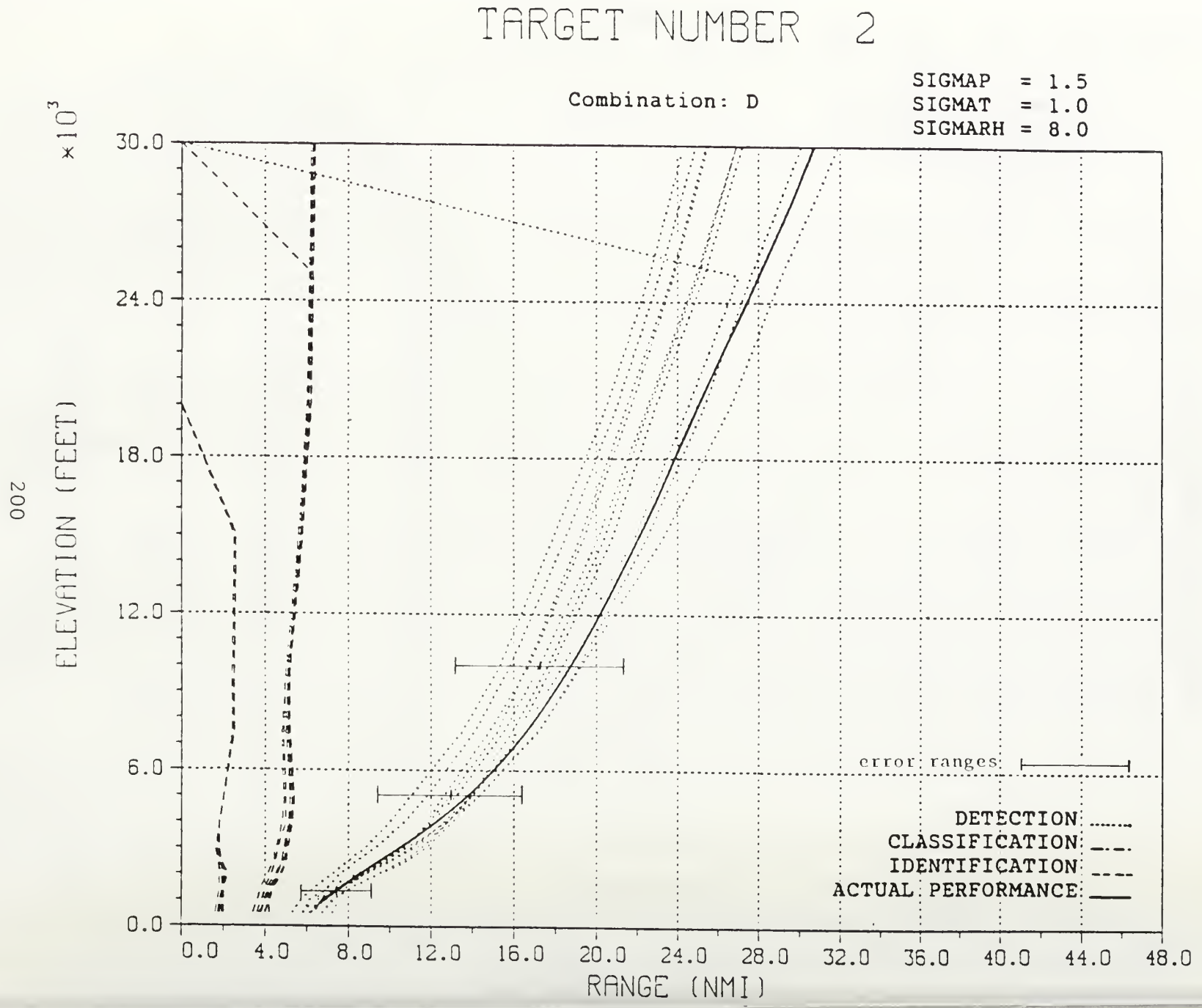

TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 3
195

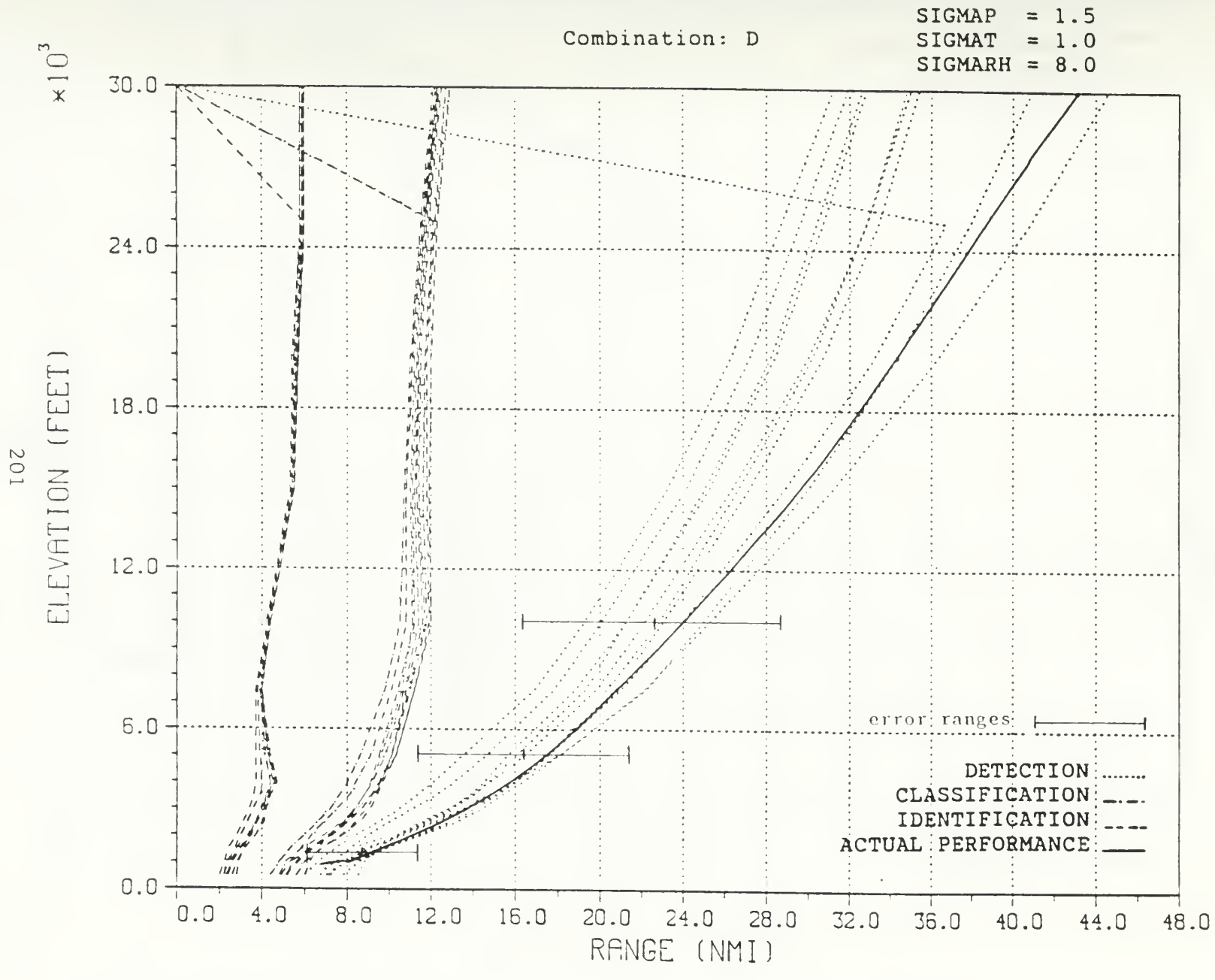

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

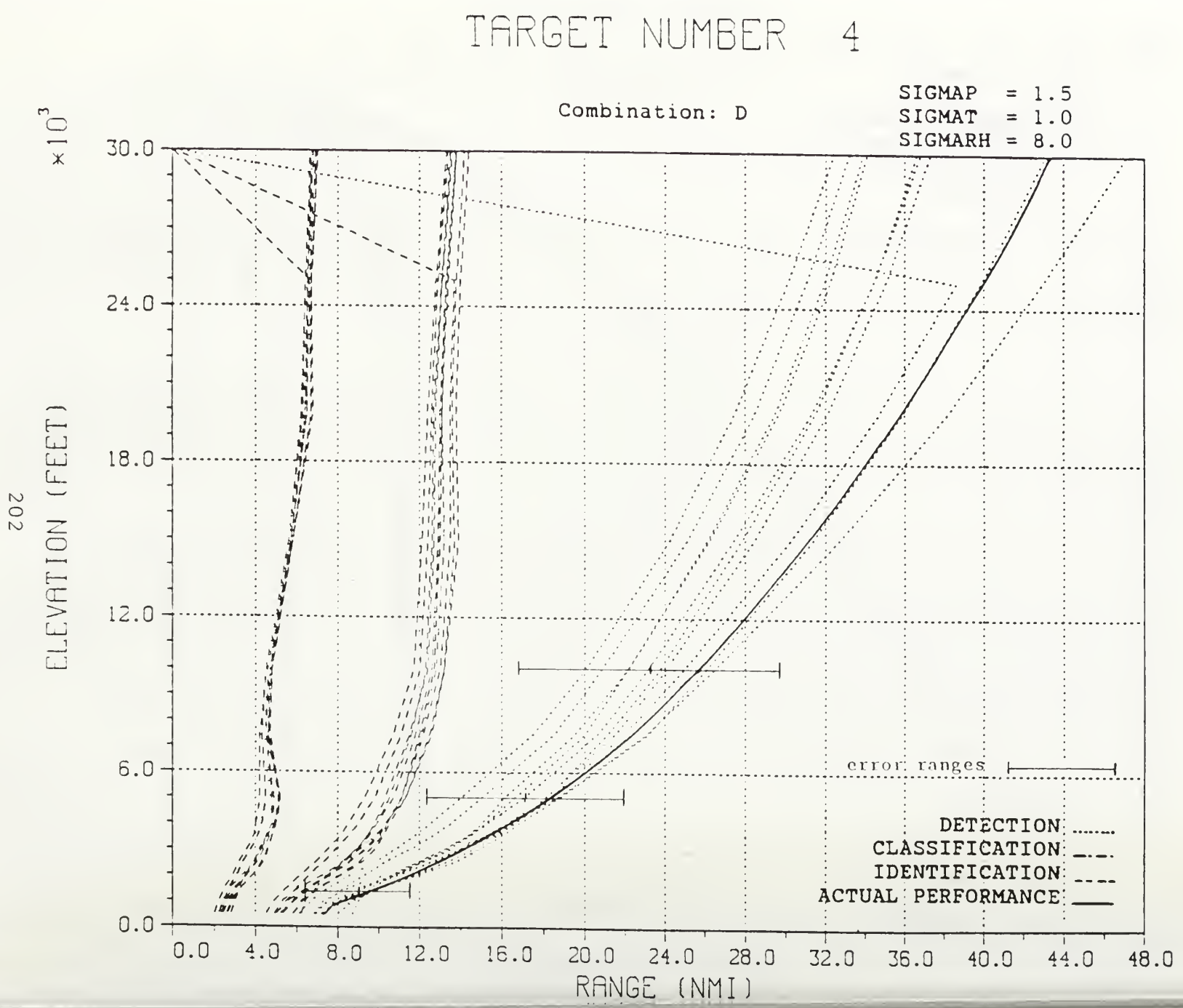

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

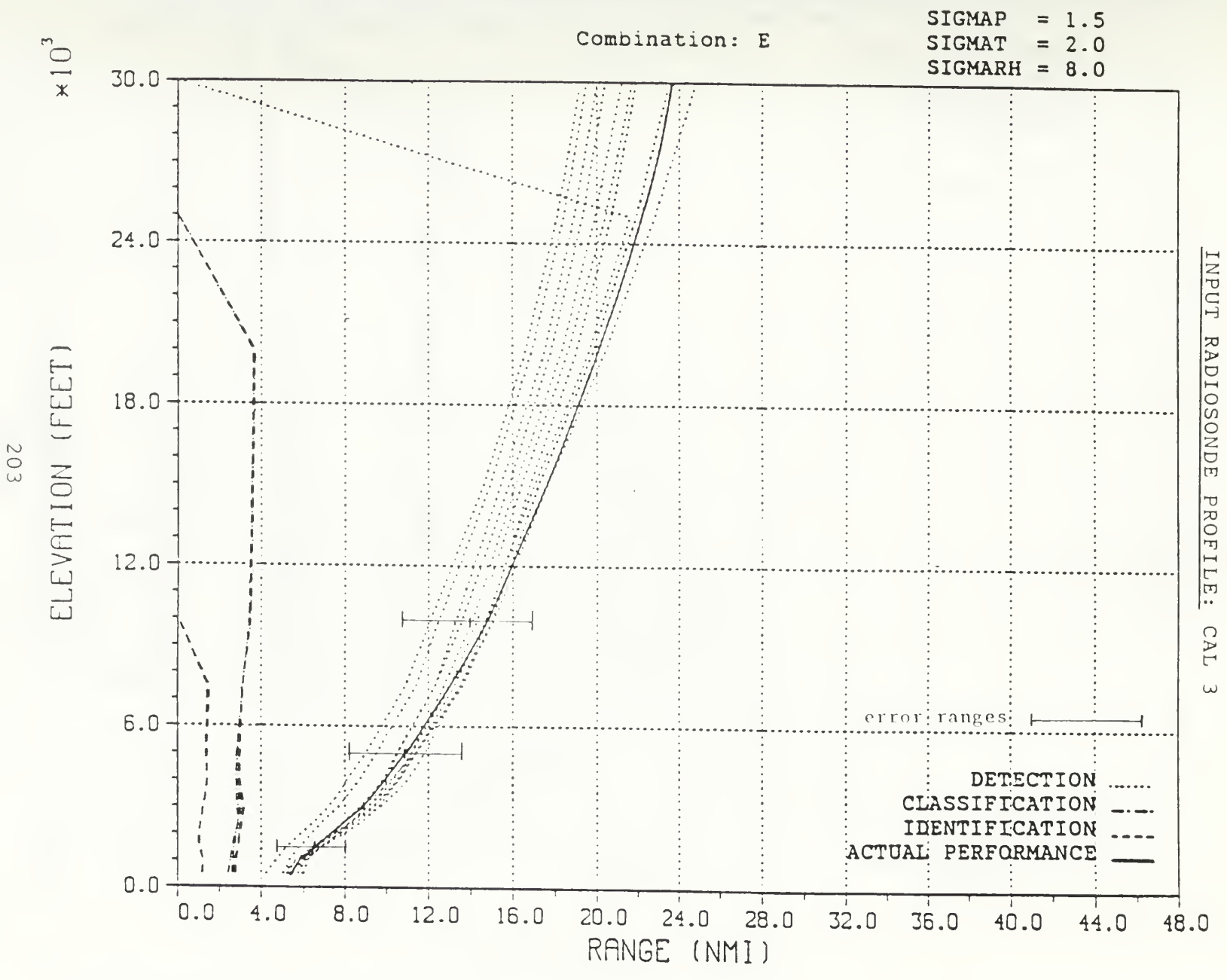

TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
198

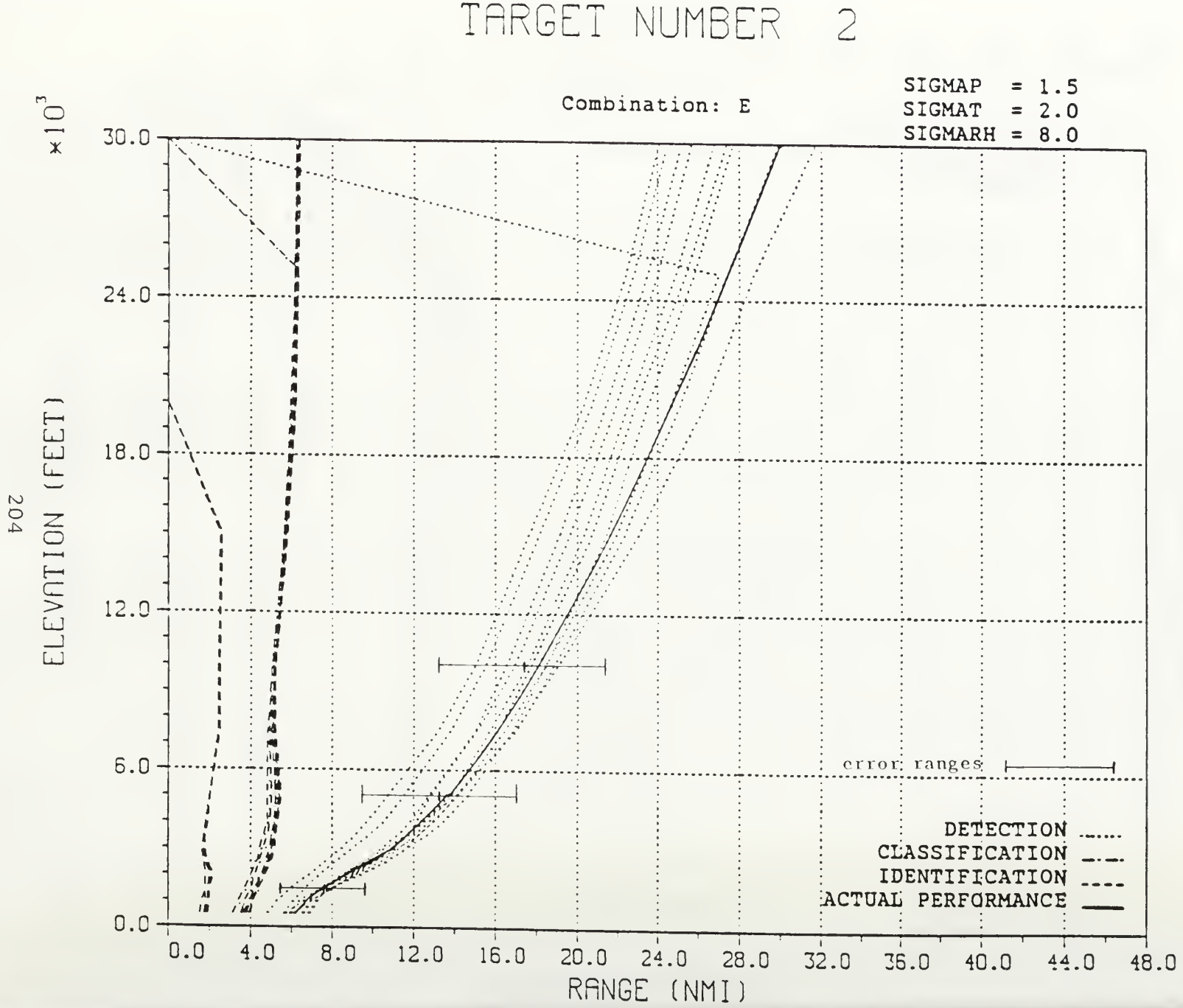

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 3

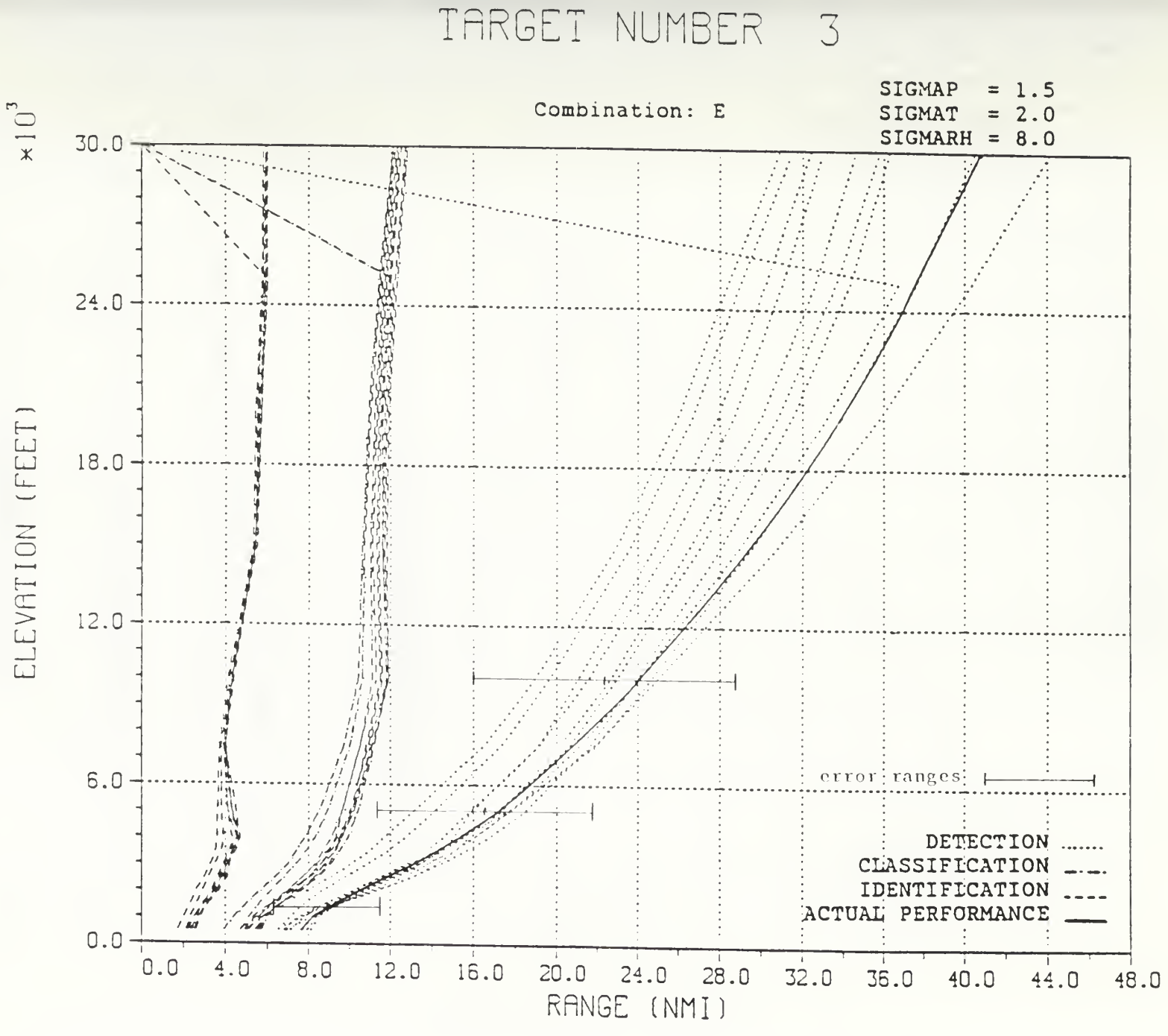

TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
200

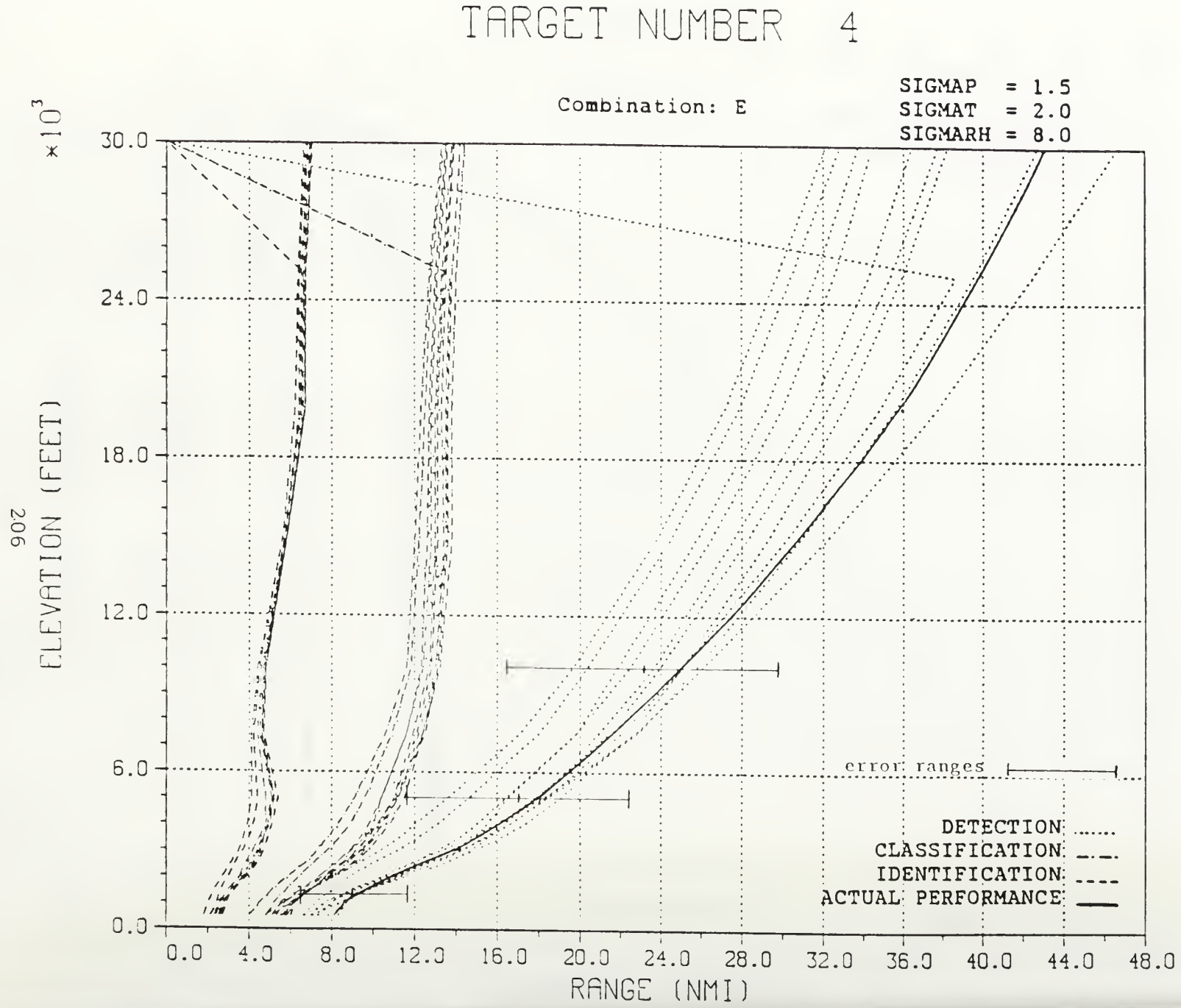

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

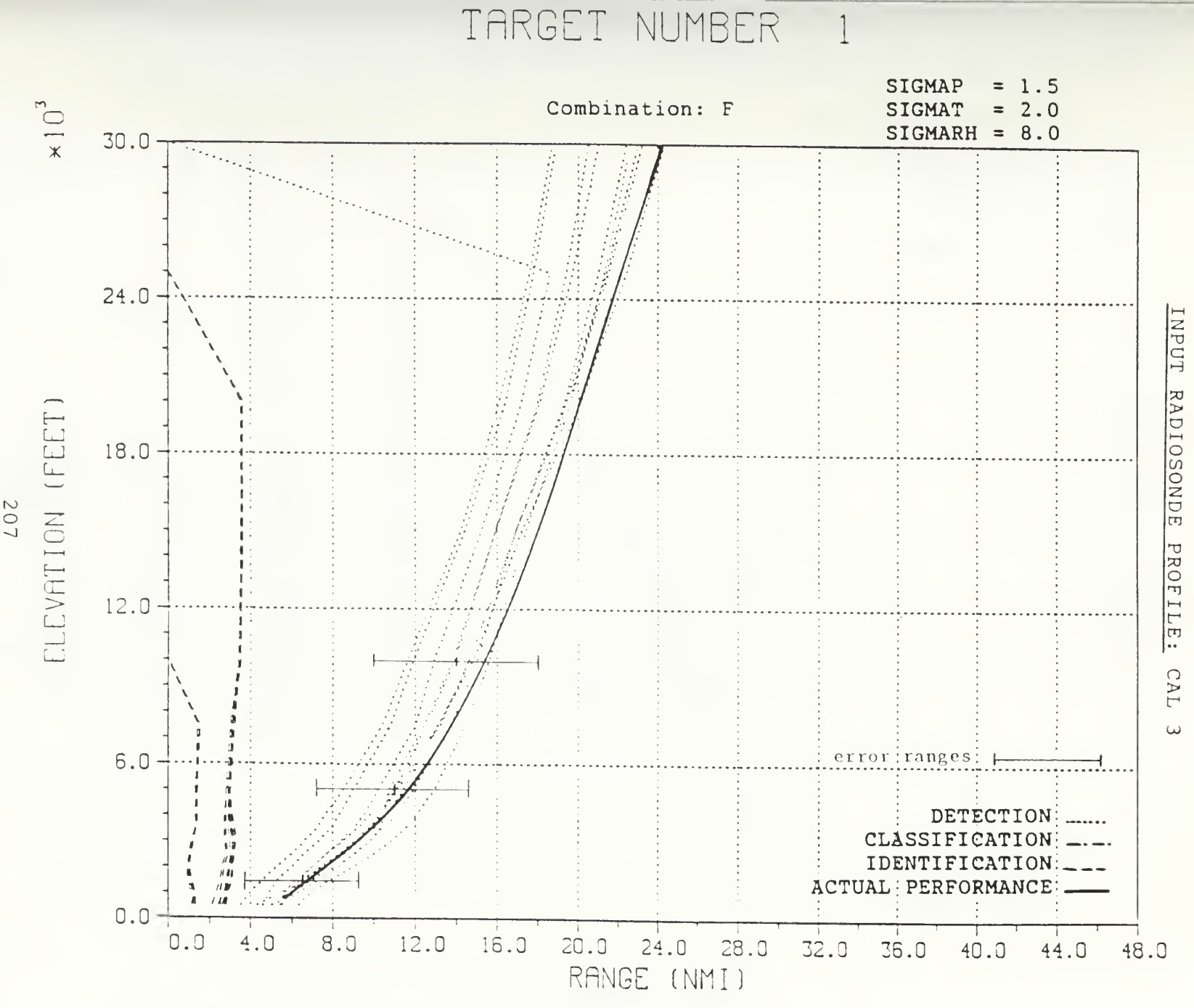

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

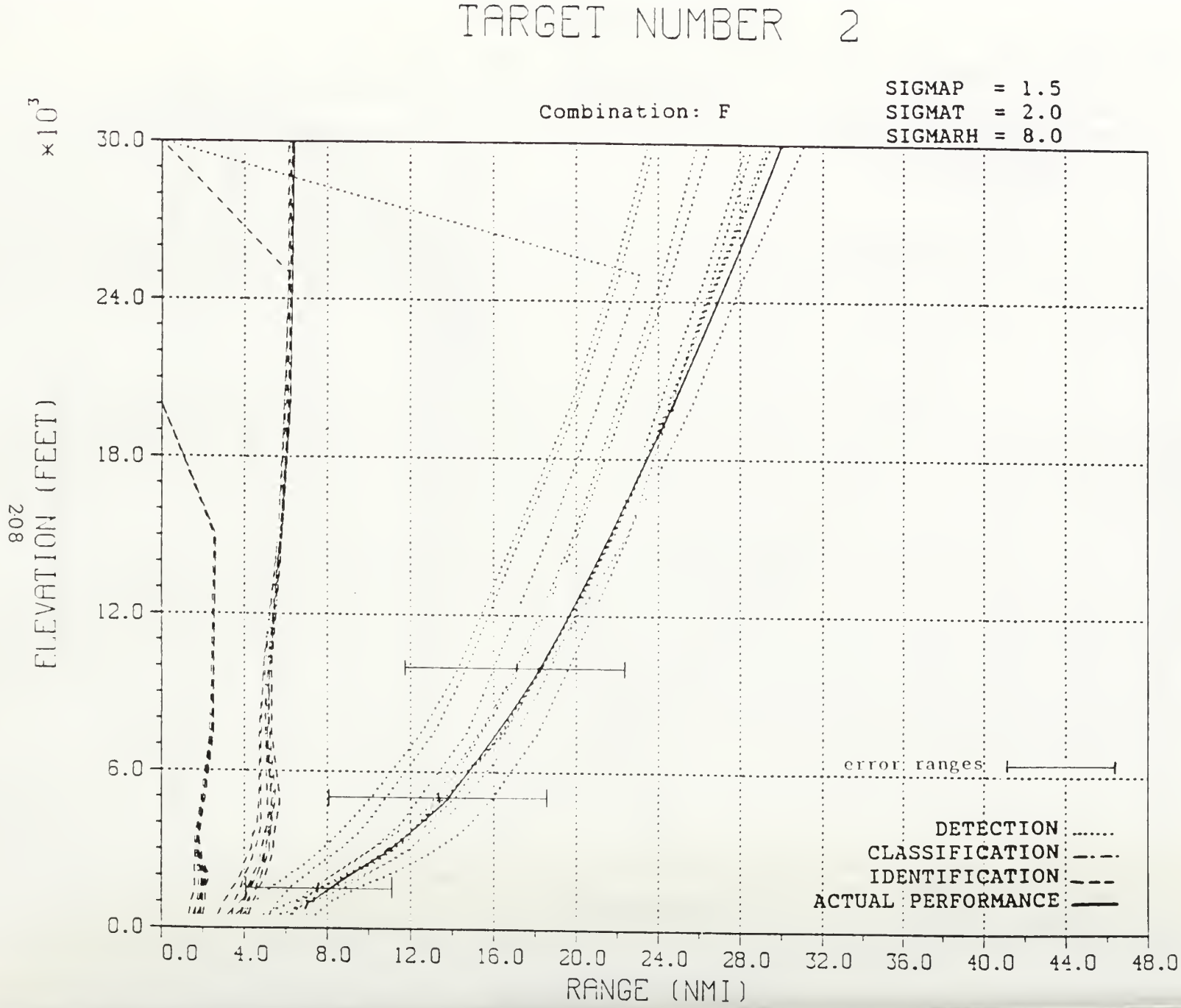

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 3

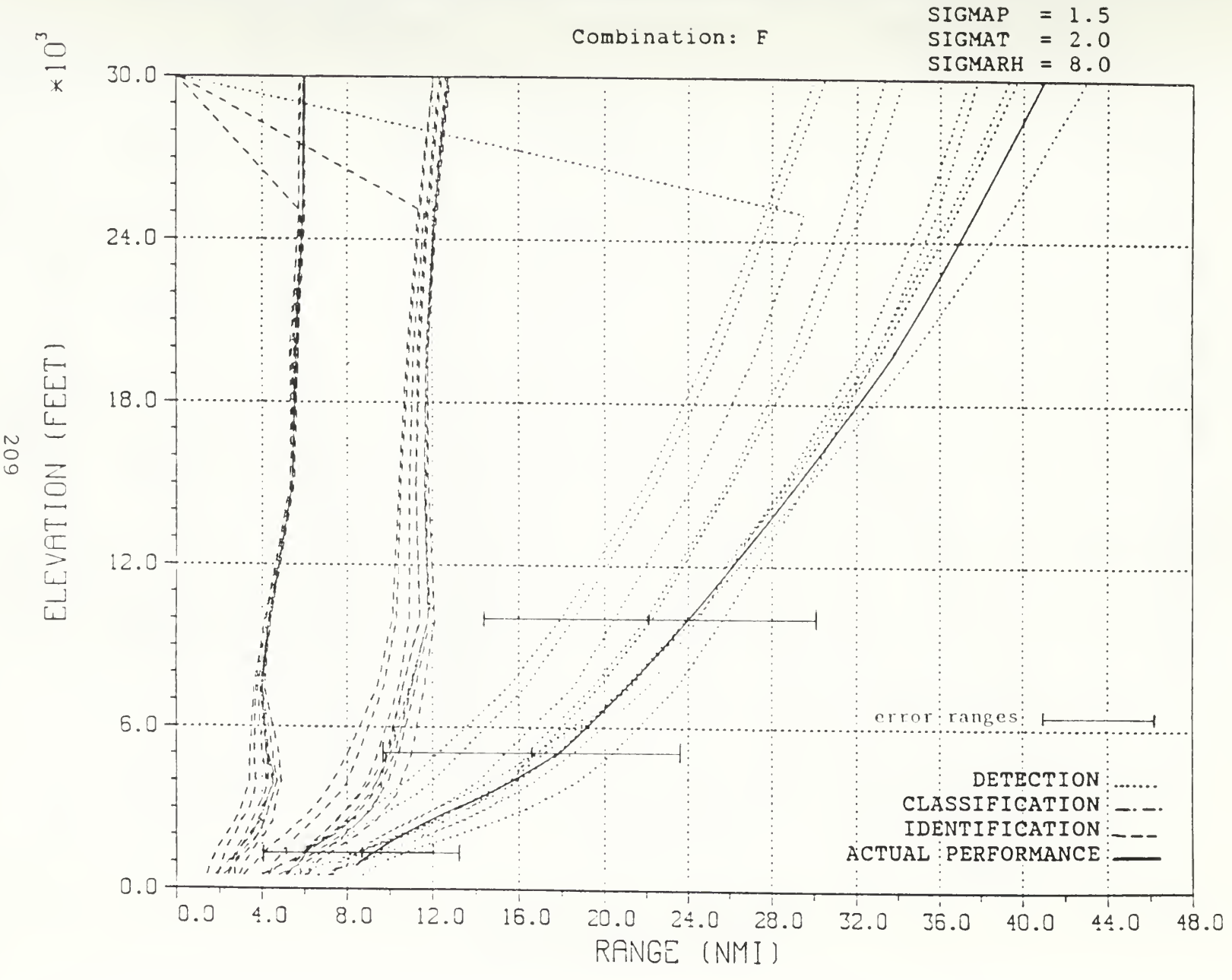

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

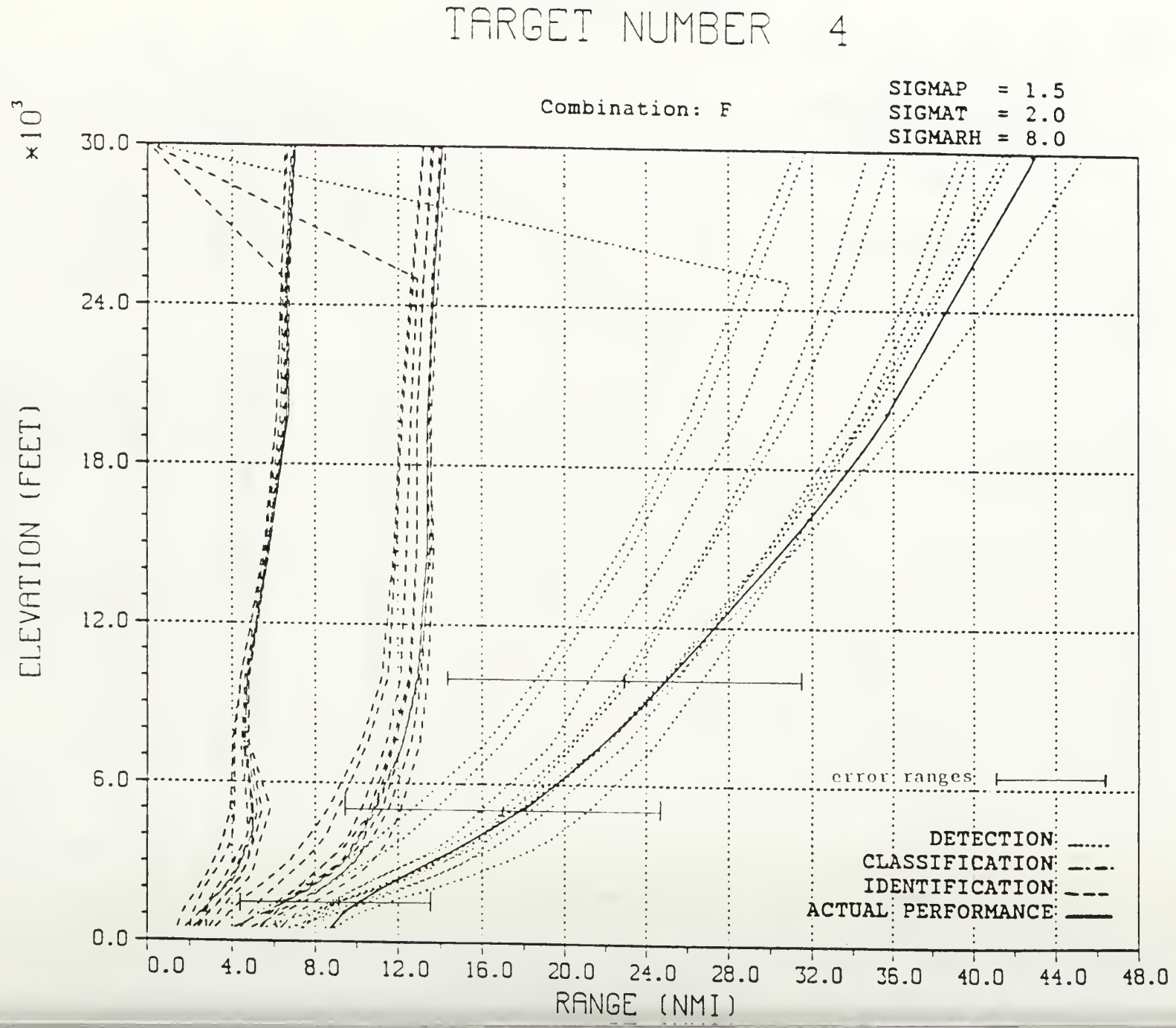

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._._
IDENTIFICATION ----
ACTUAL PERFORMANCE ——

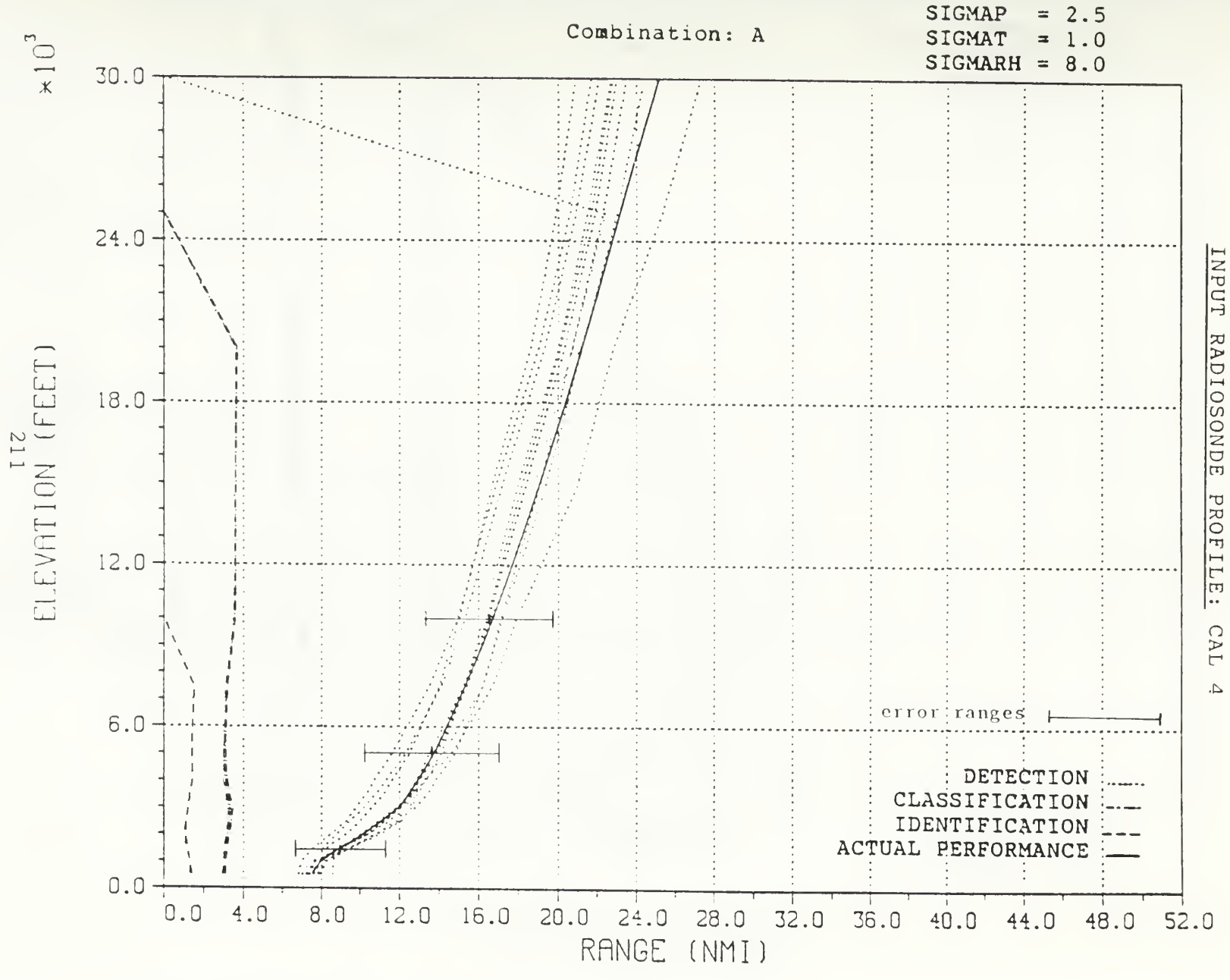

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 3


TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

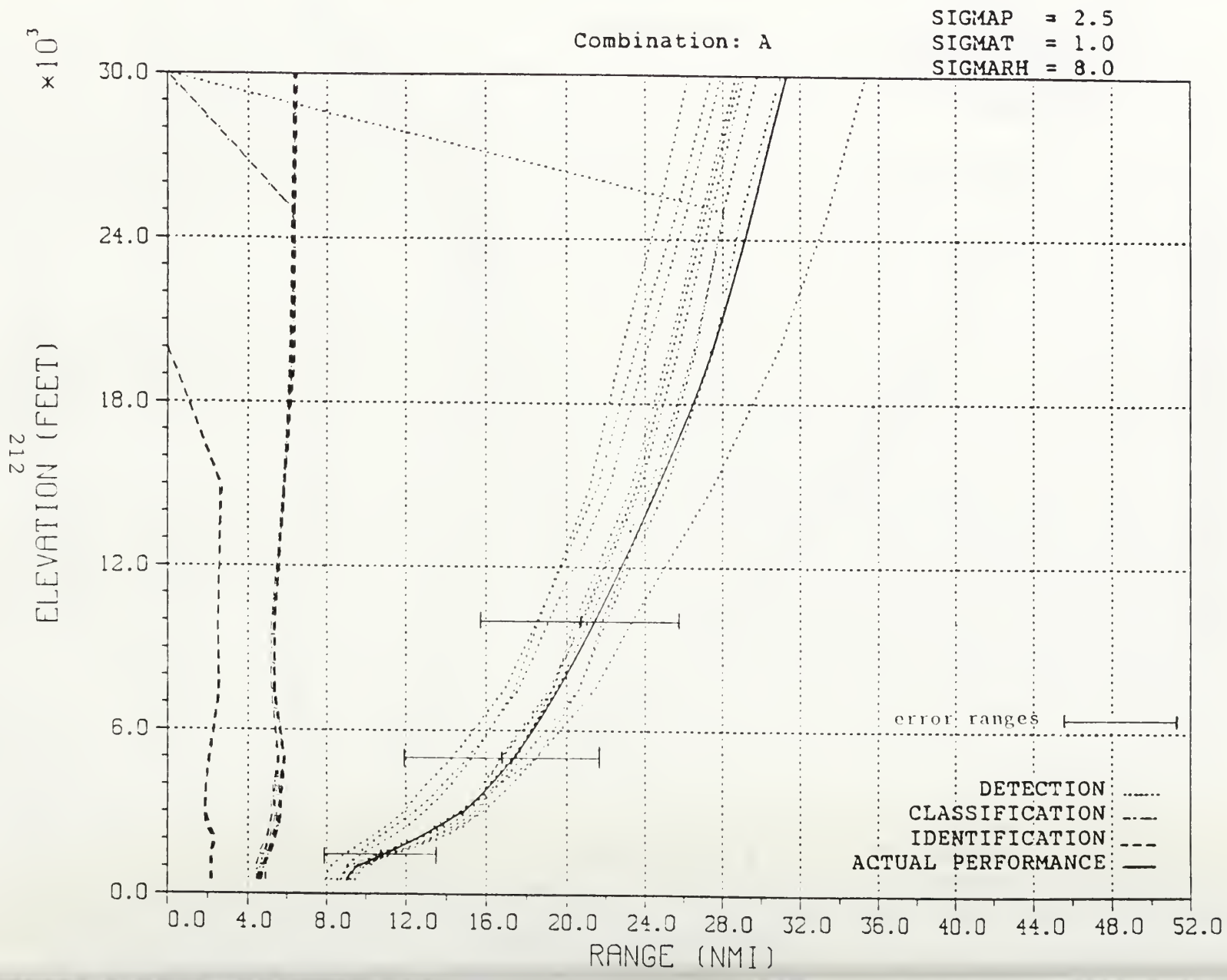

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

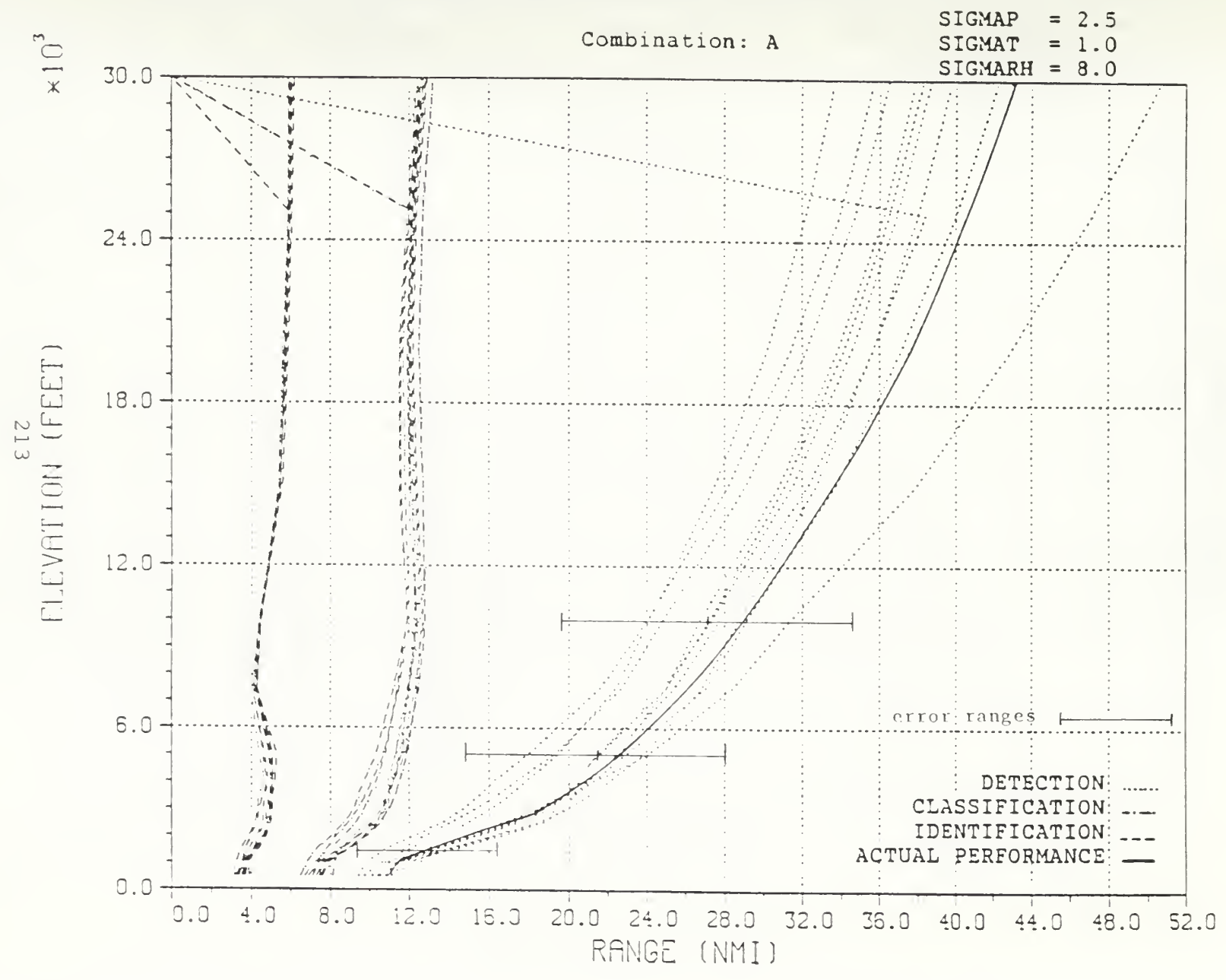

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 1

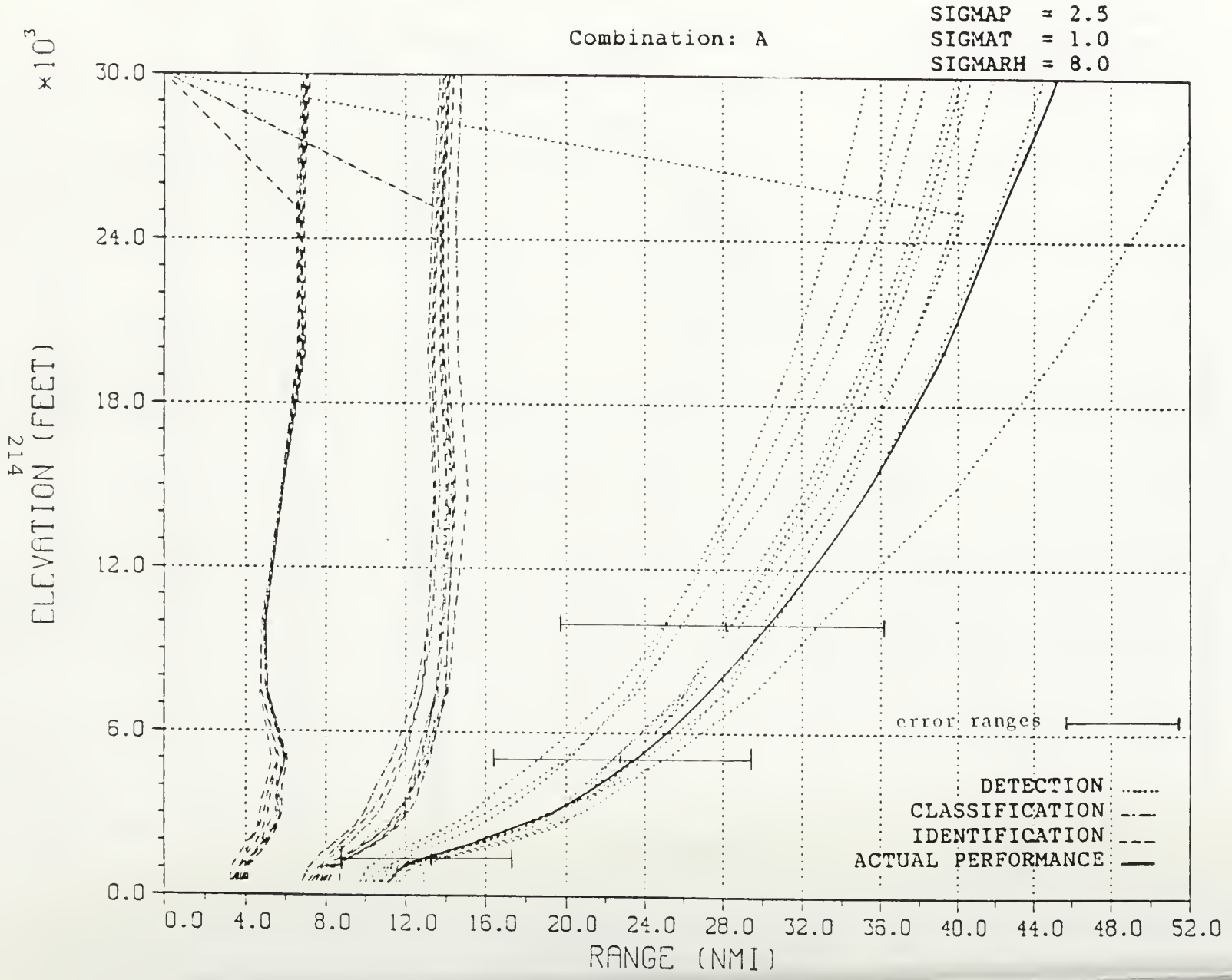


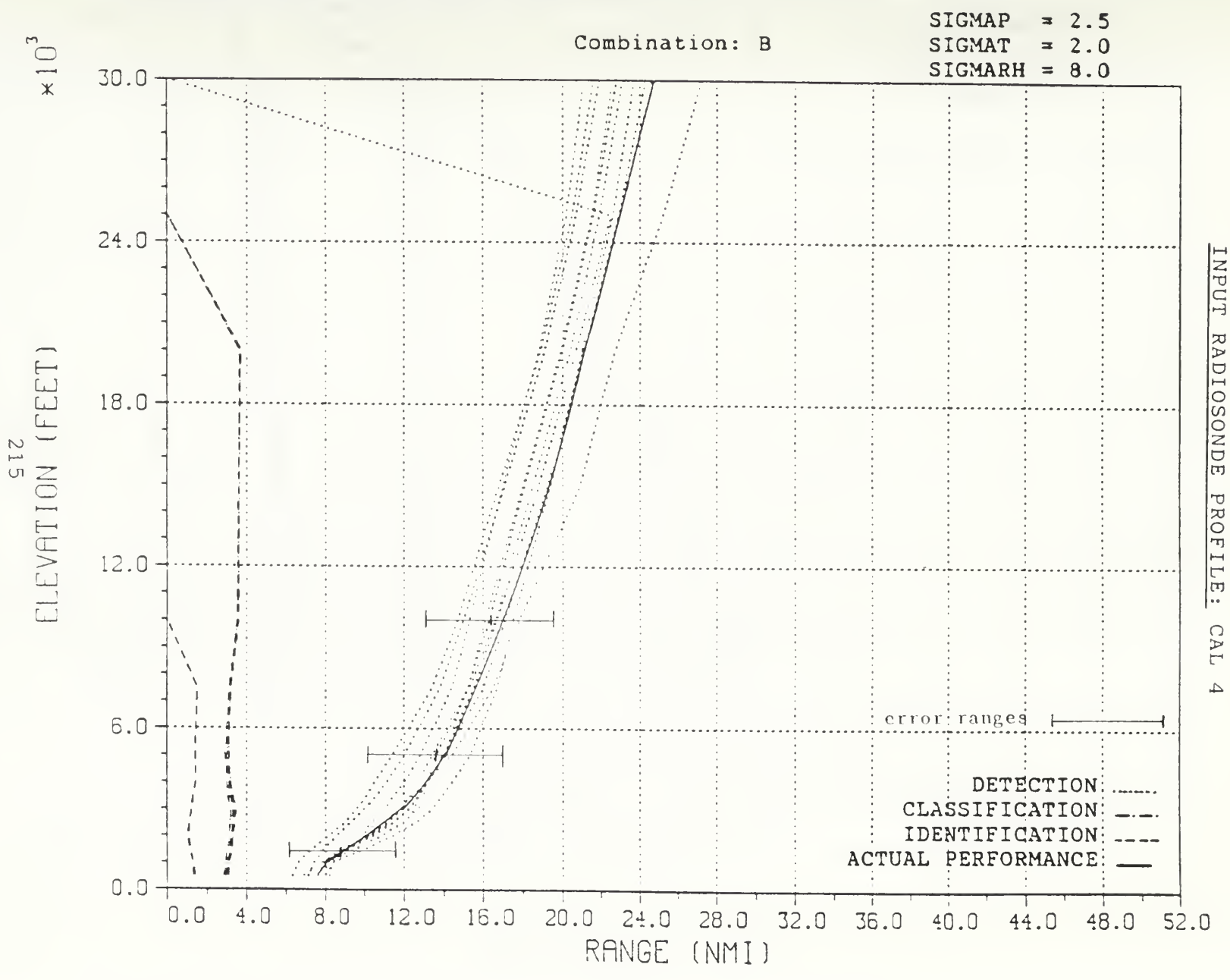
TARGET NUMBER 2

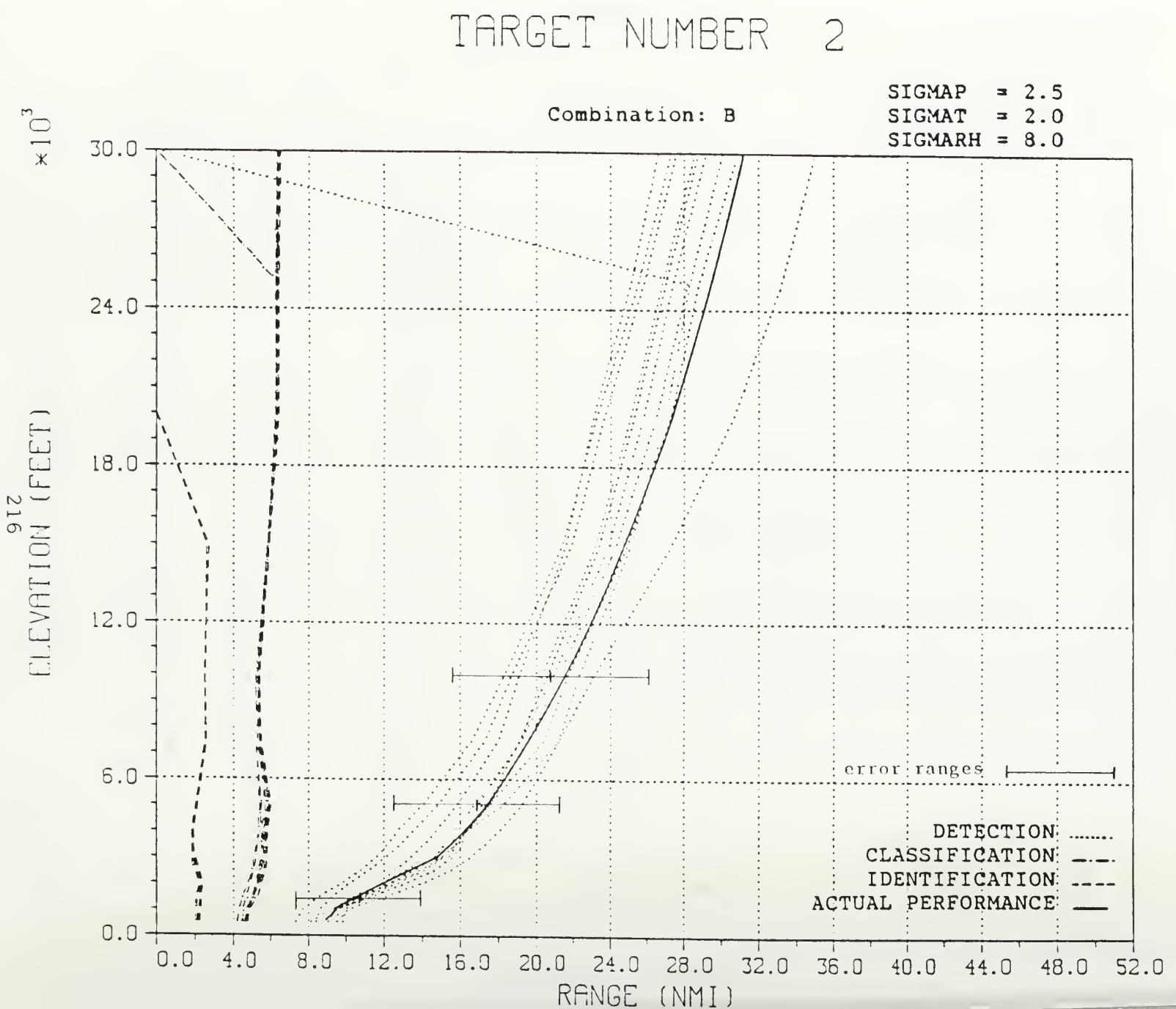


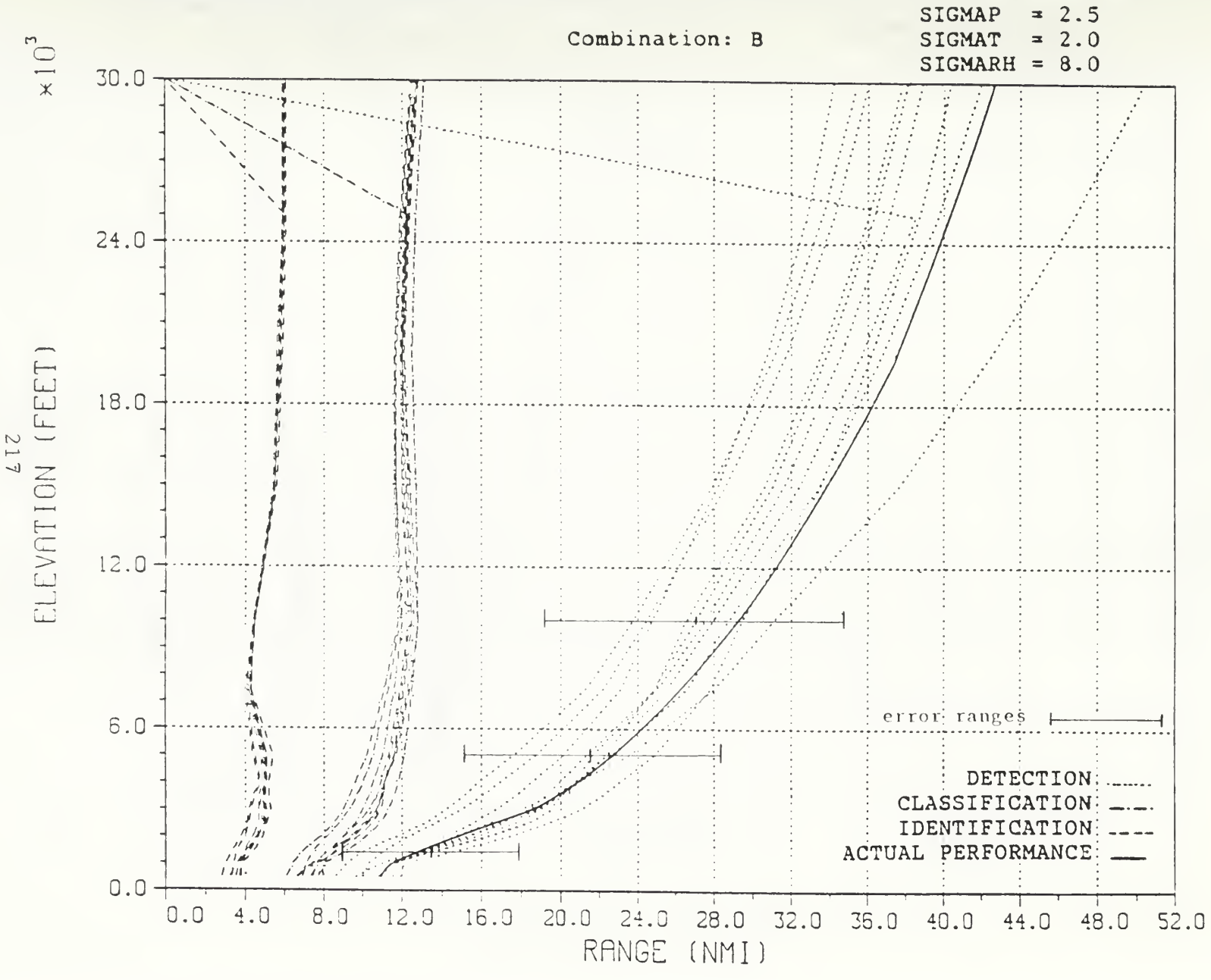

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
213
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

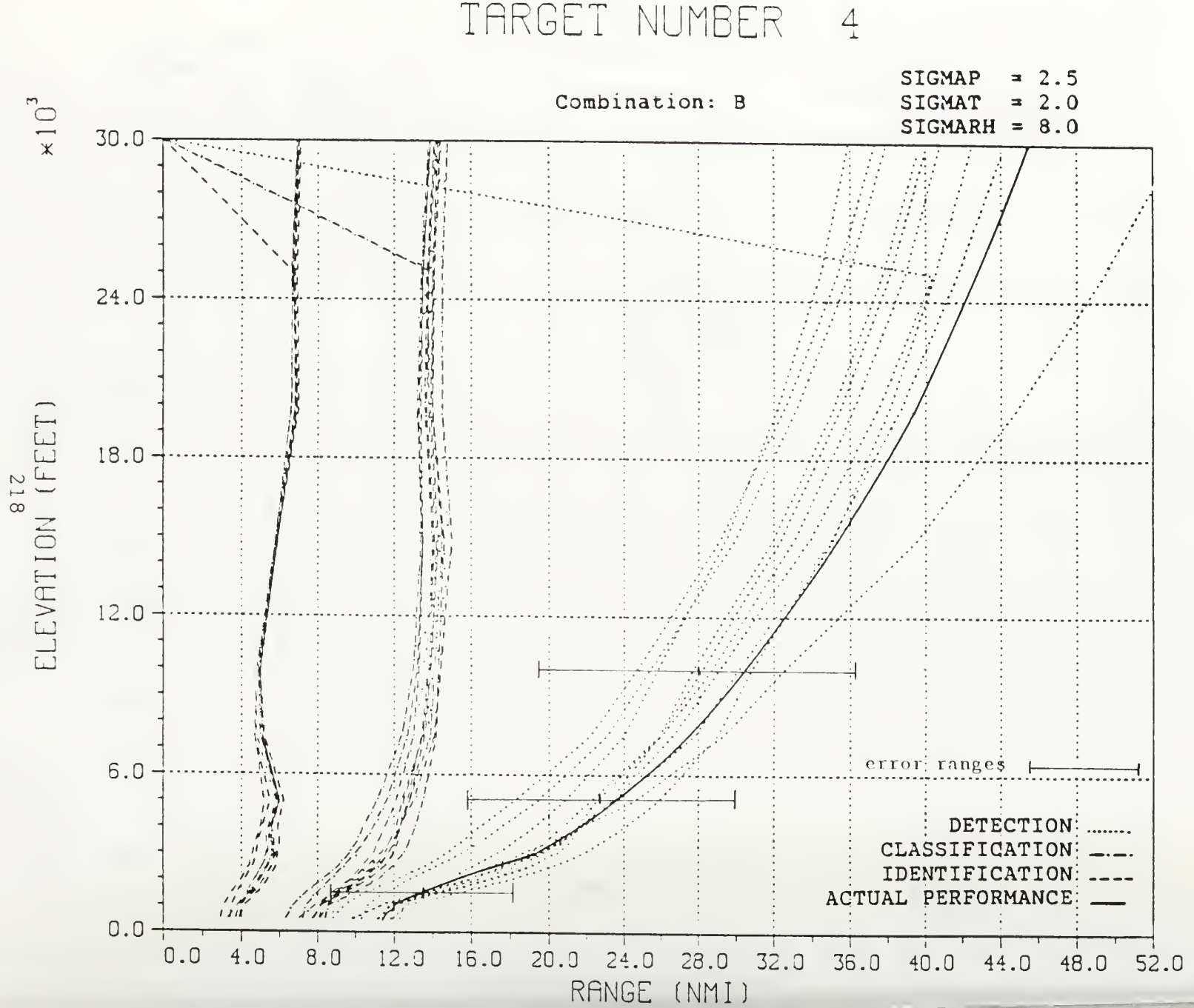
TARGET NUMBER 4



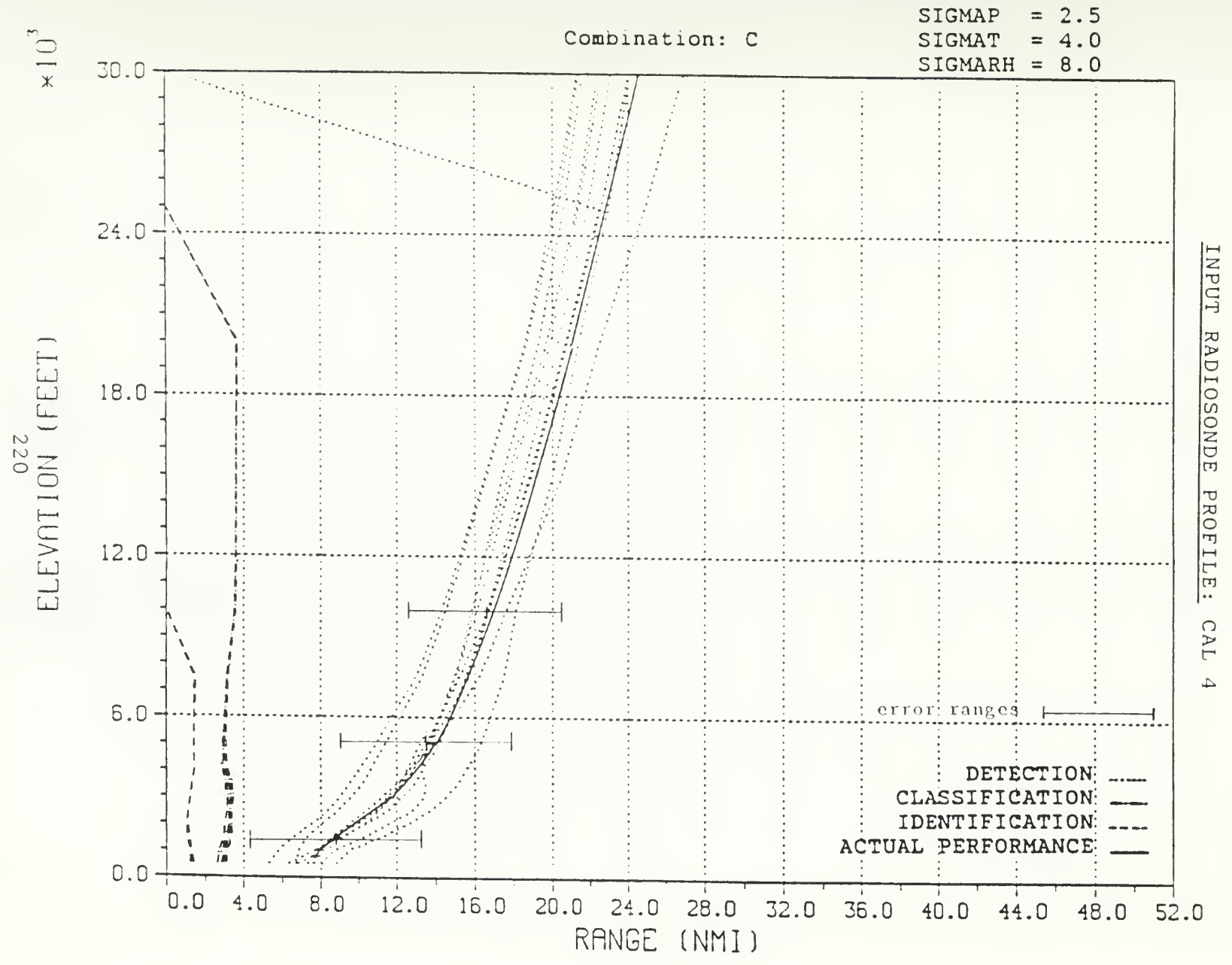

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 4


TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
×10³
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 1



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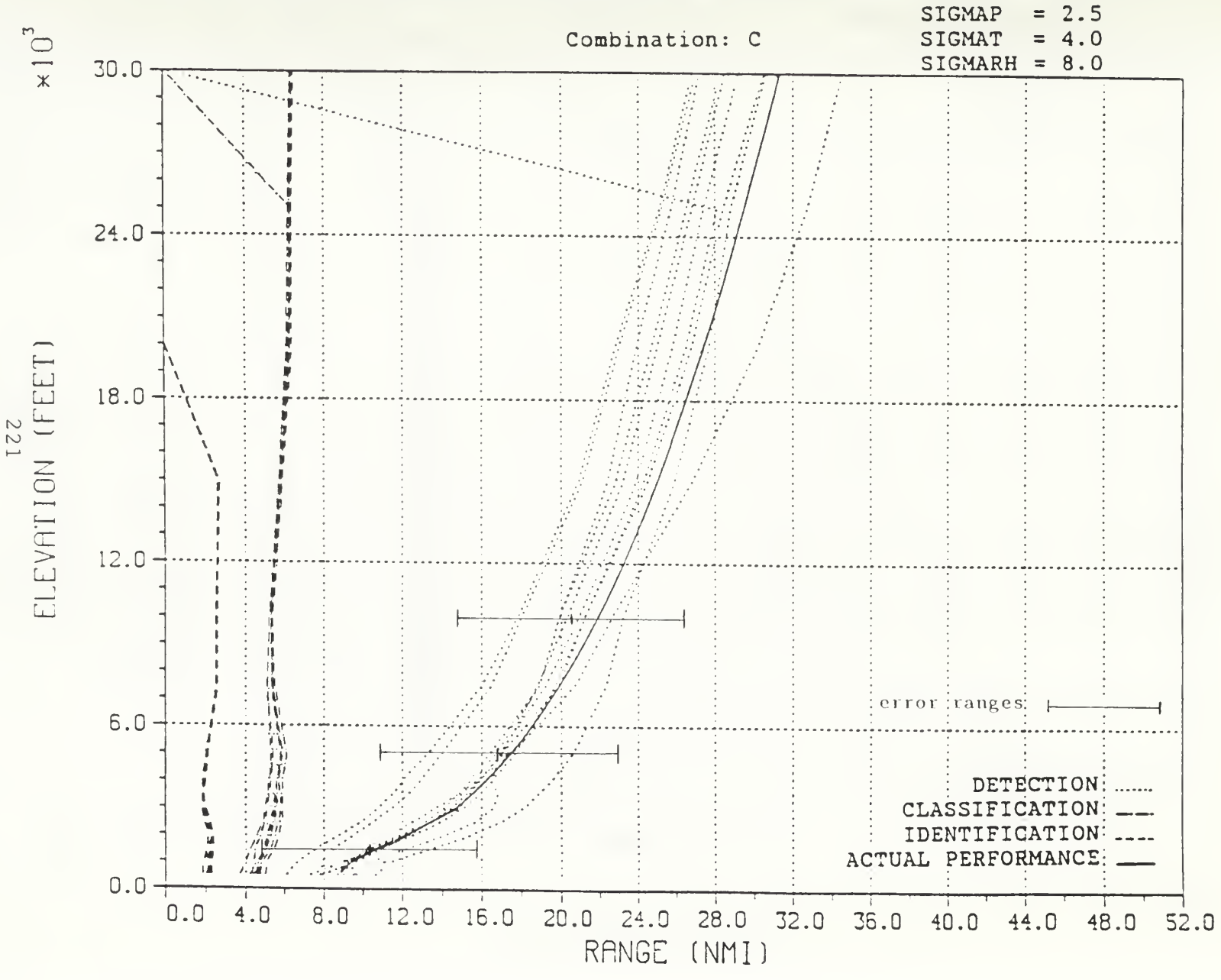
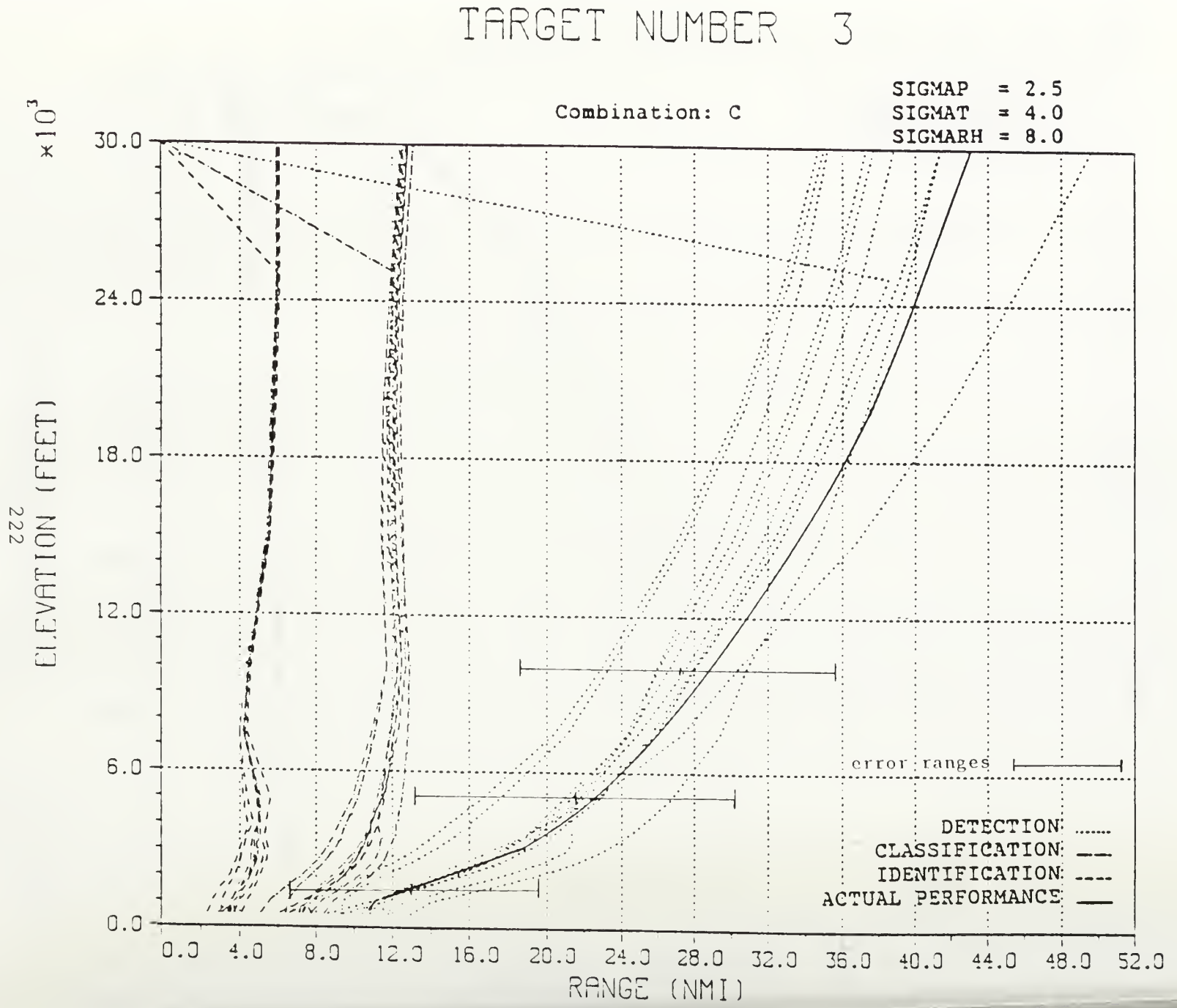
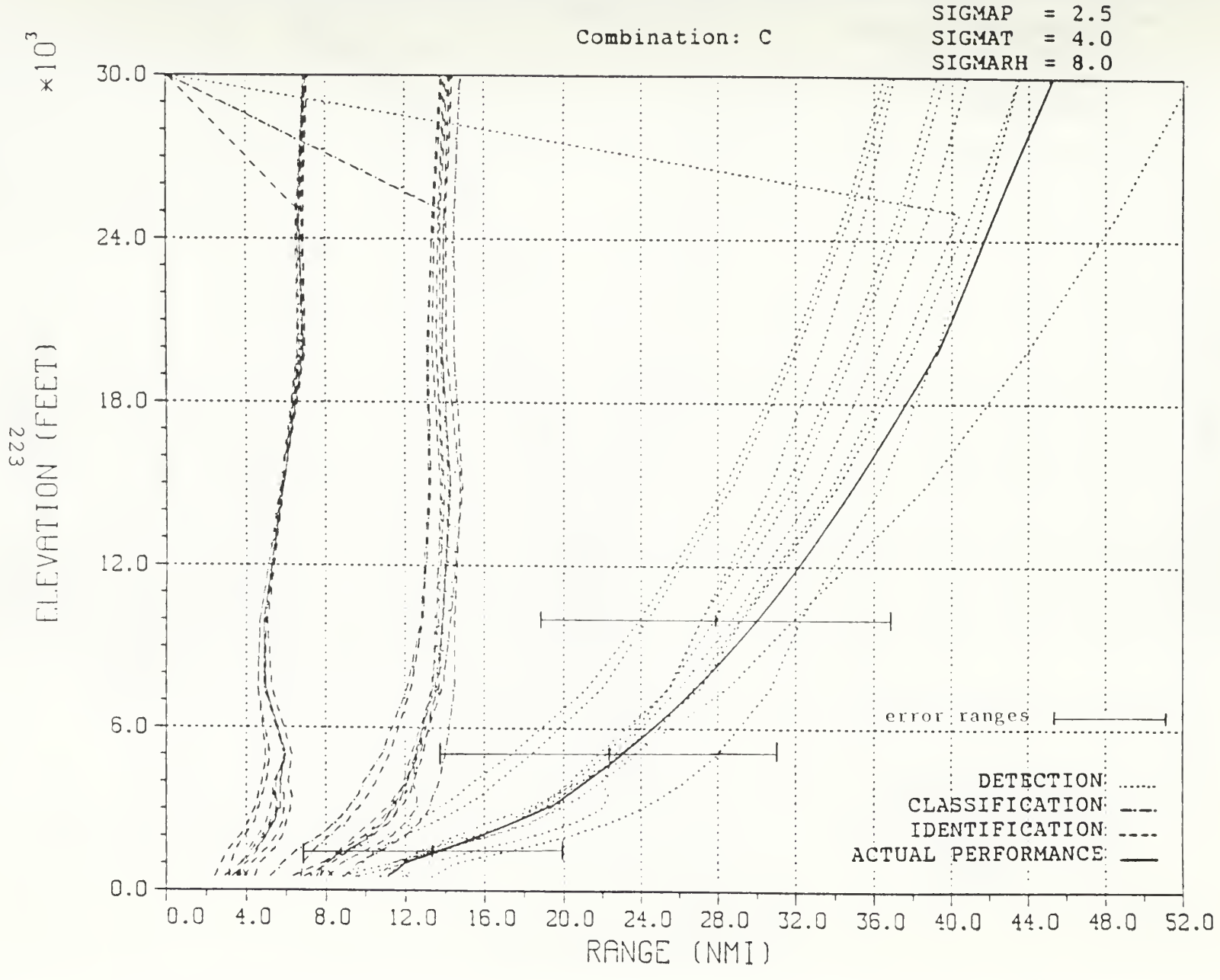
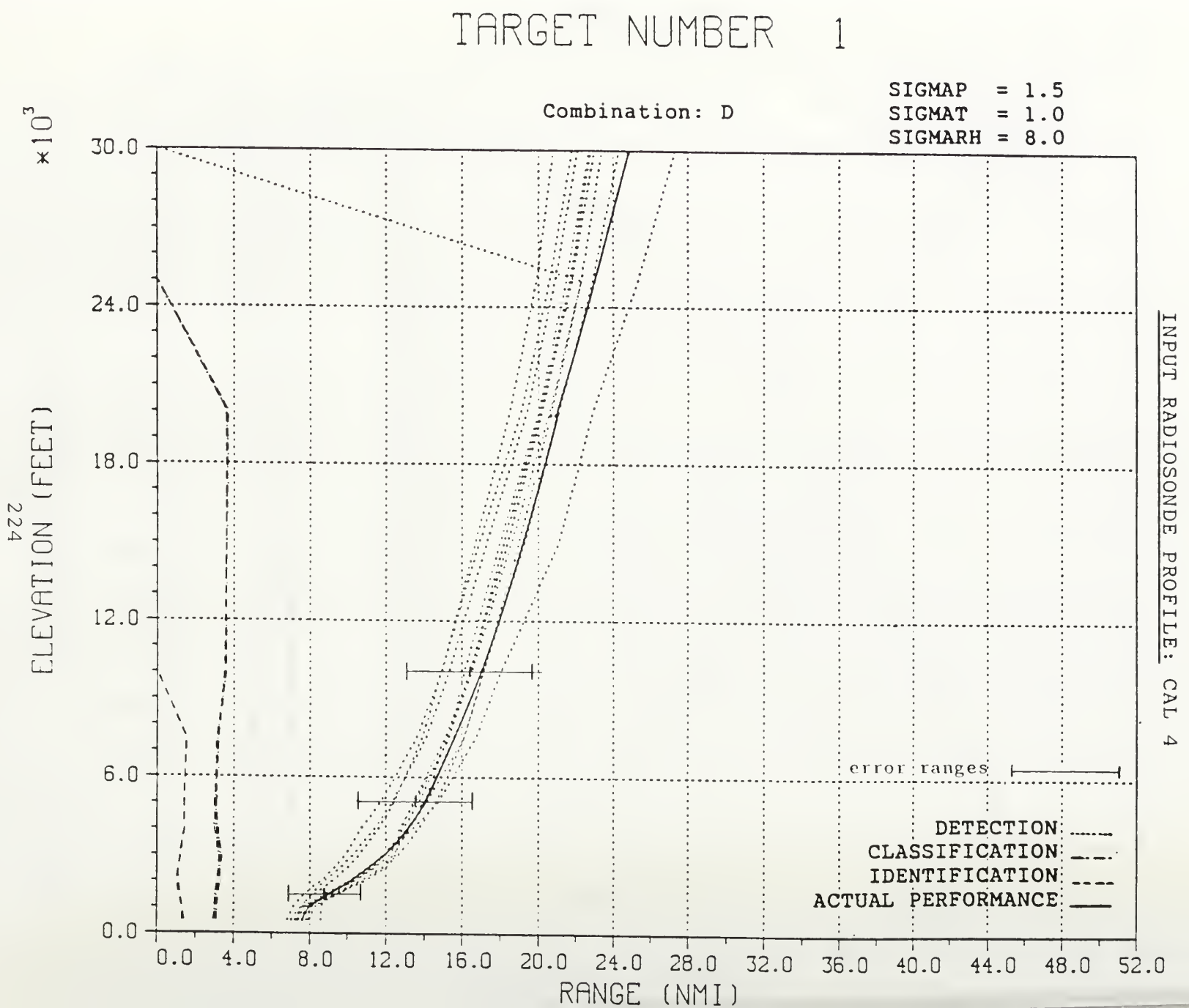
TARGET NUMBER 2

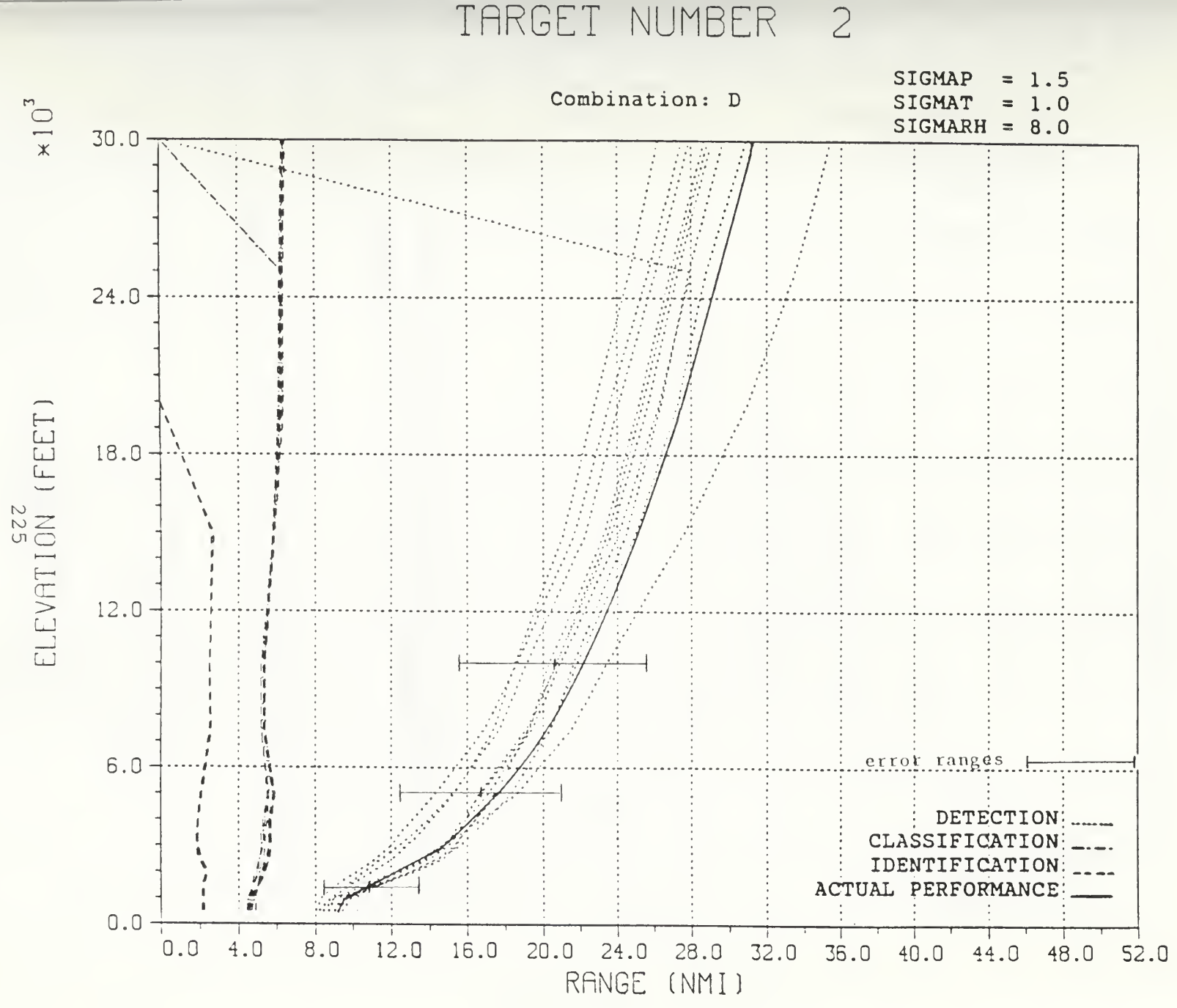



TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION ——
IDENTIFICATION ----
ACTUAL PERFORMANCE ——

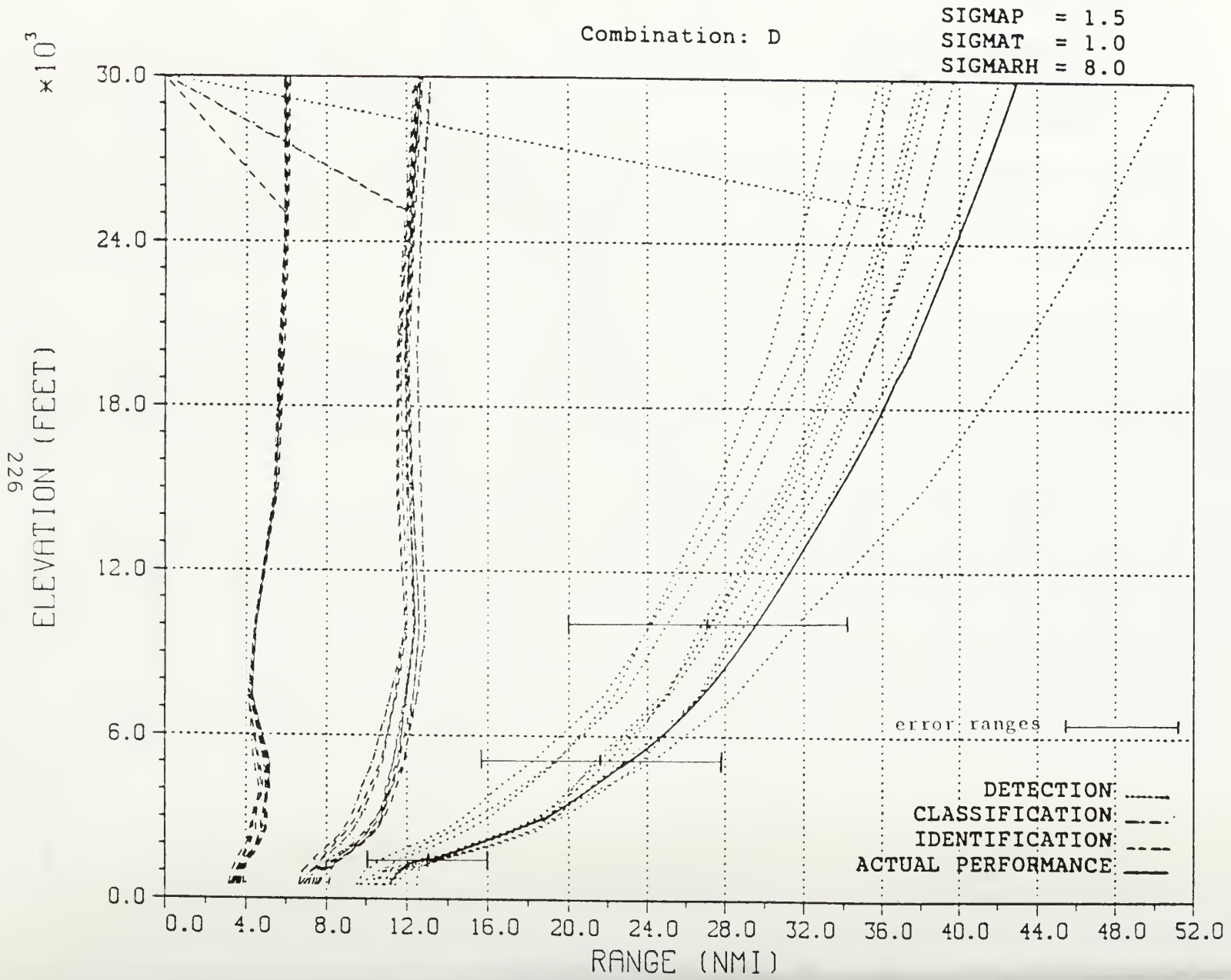
TARGET NUMBER 4

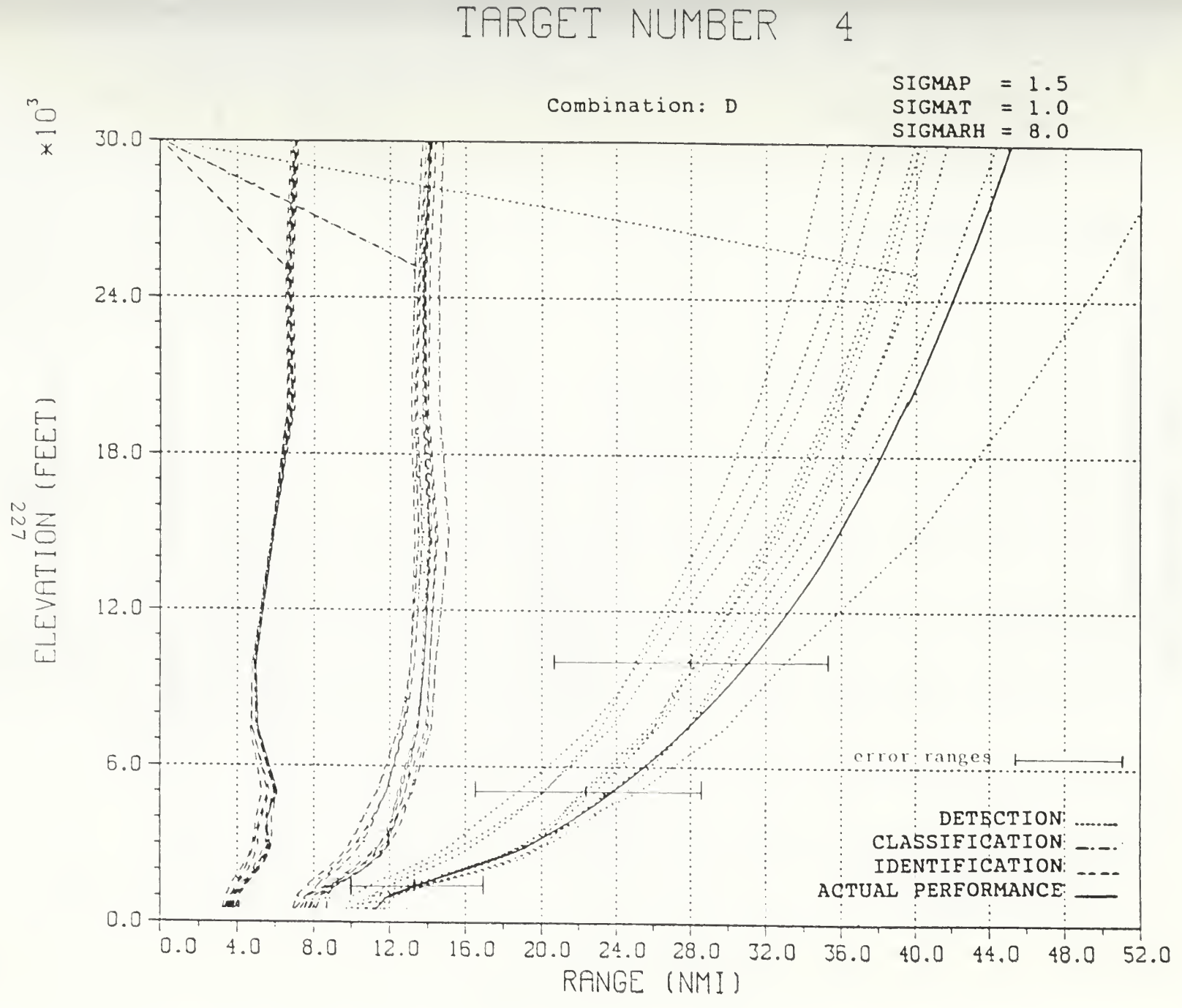



TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 4
224

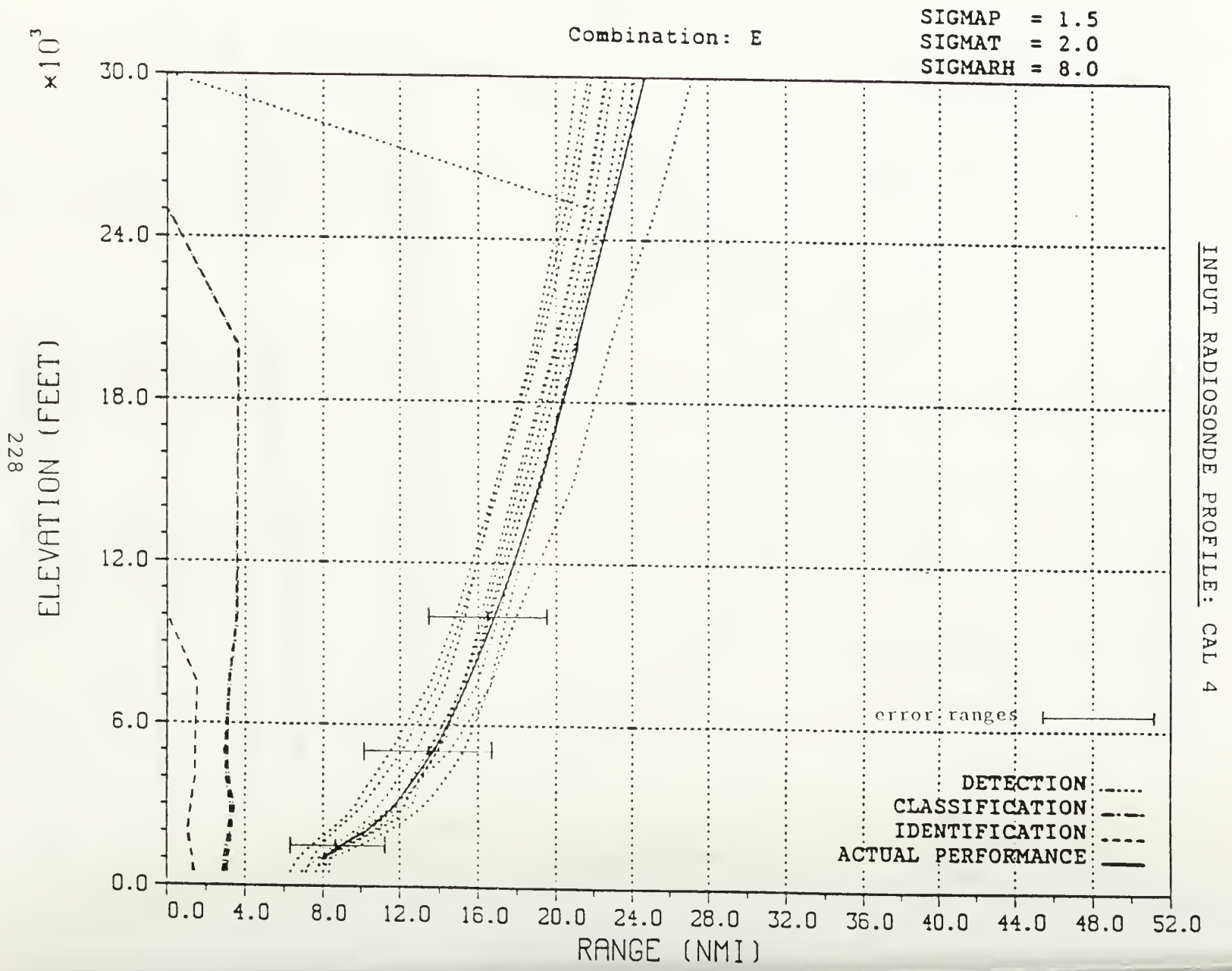

TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
225

TARGET NUMBER 3

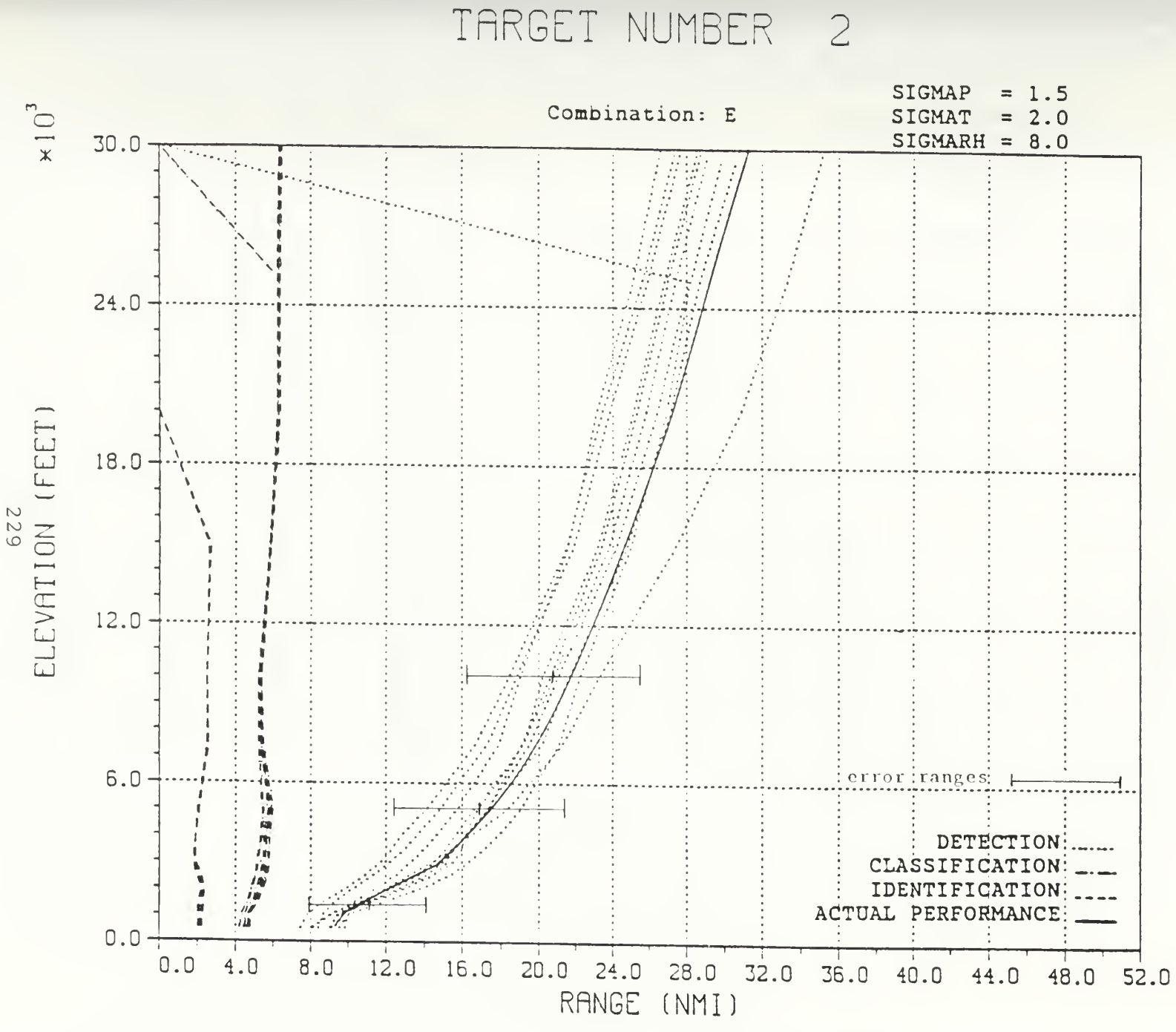



TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

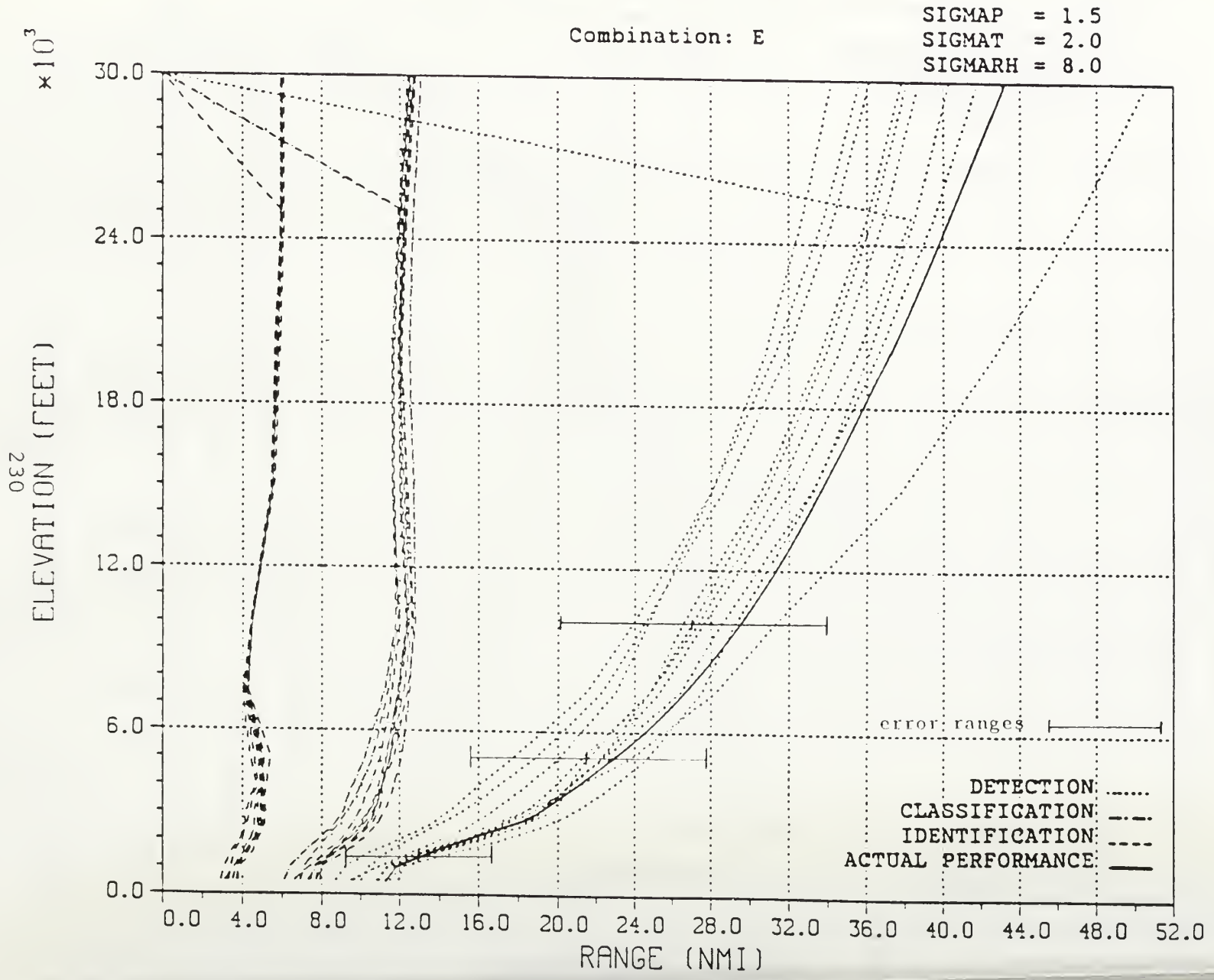
TARGET NUMBER 1

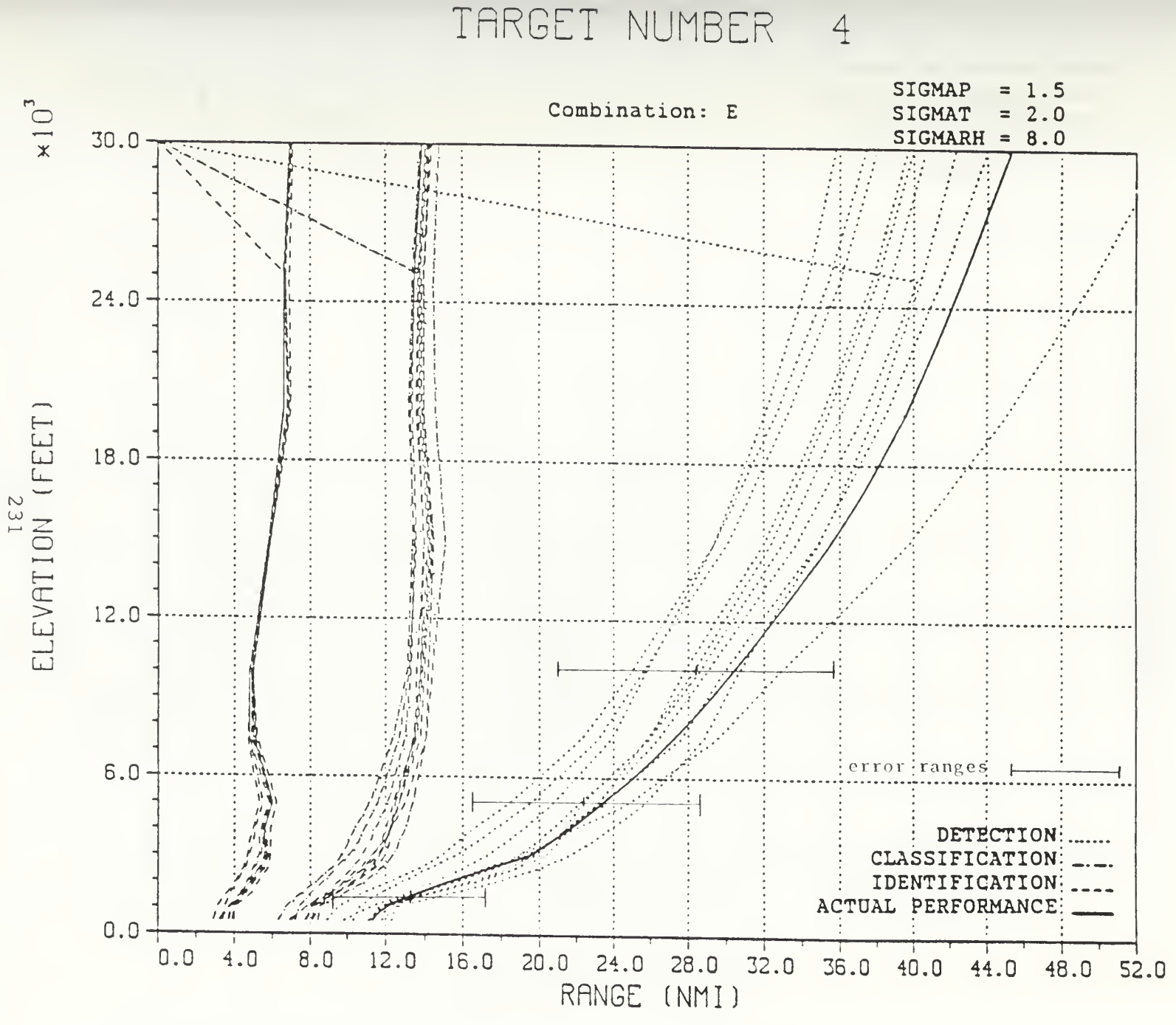


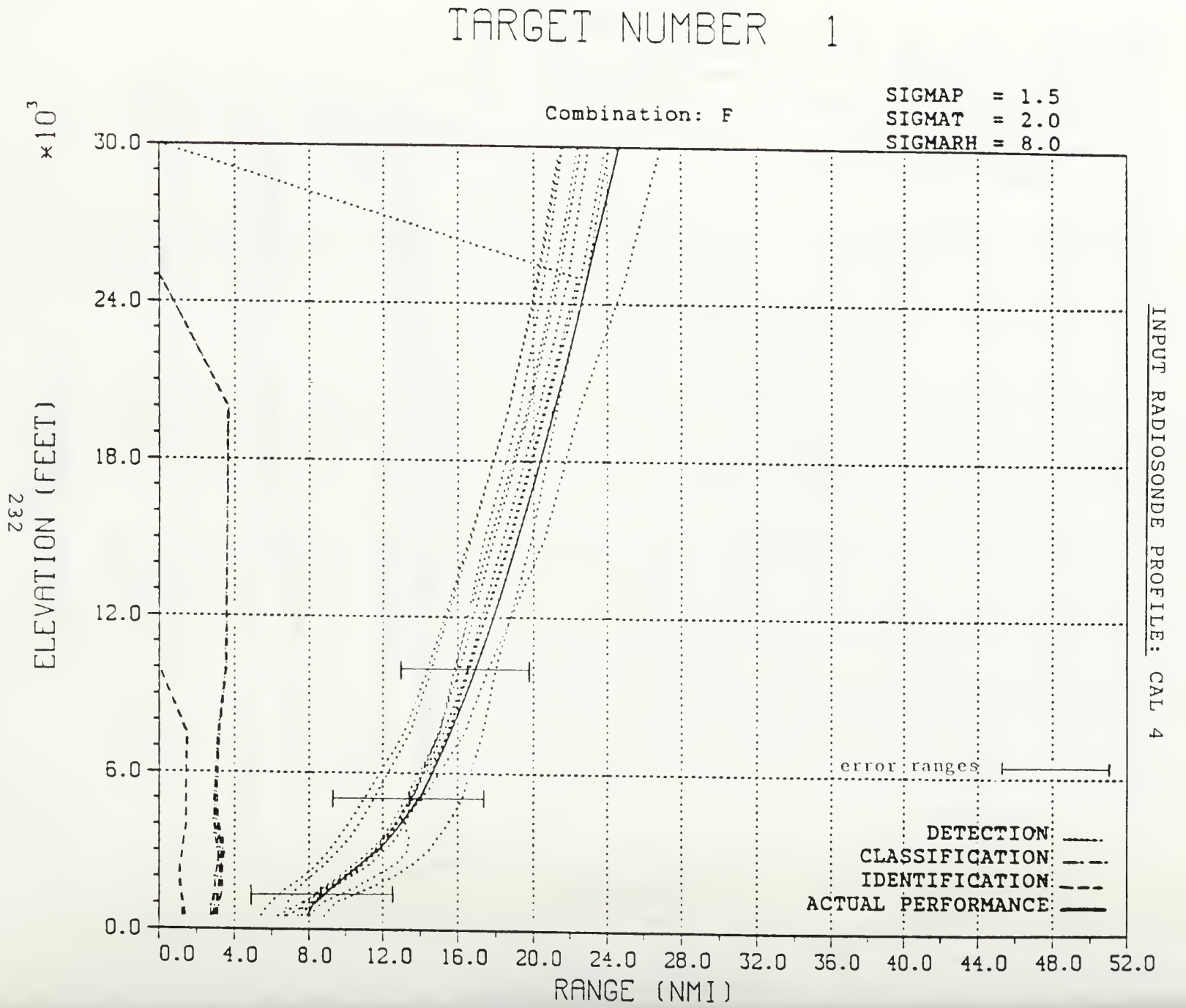
INPUT RADIOSONDE PROFILE: CAL 4

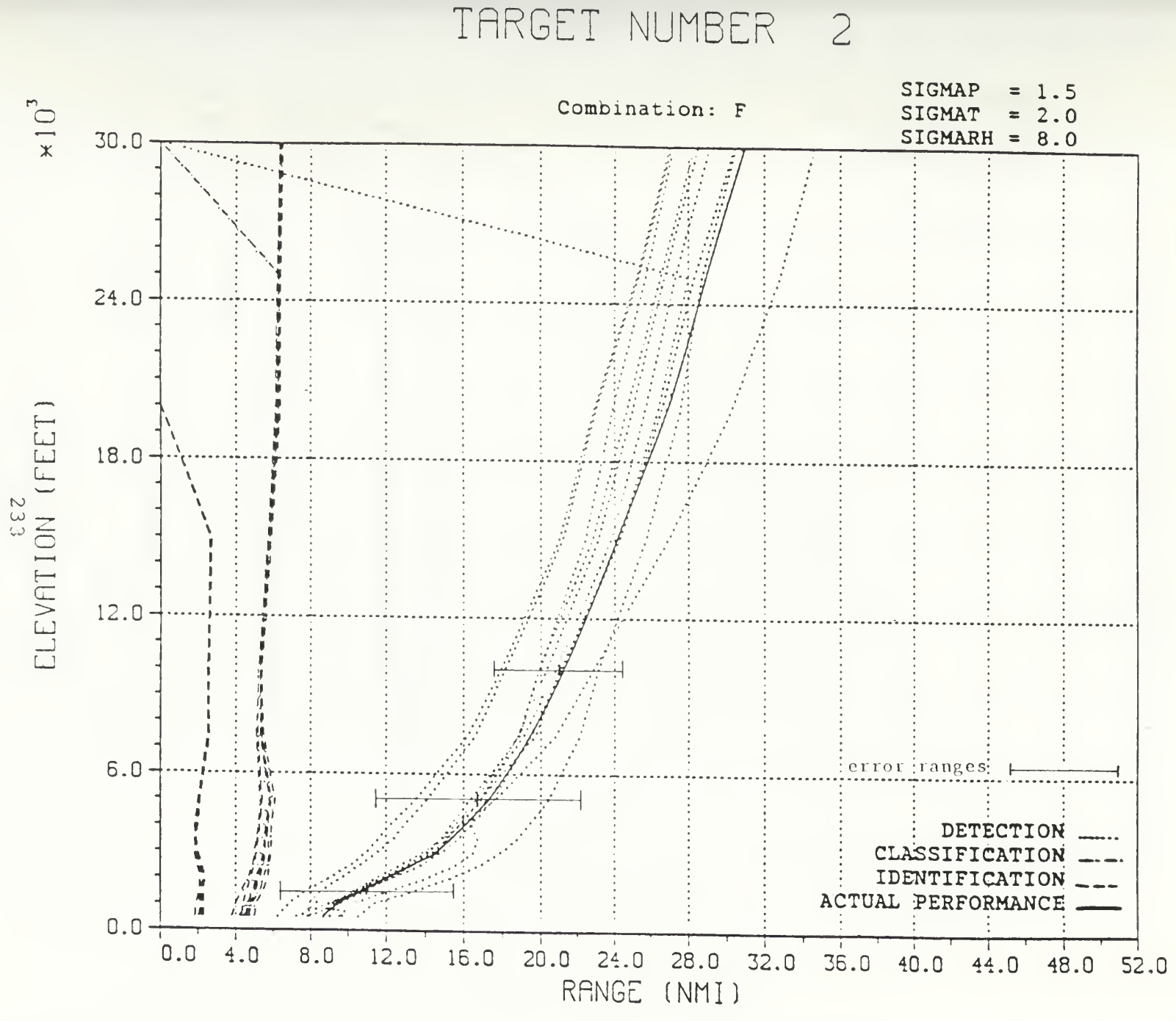

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 3

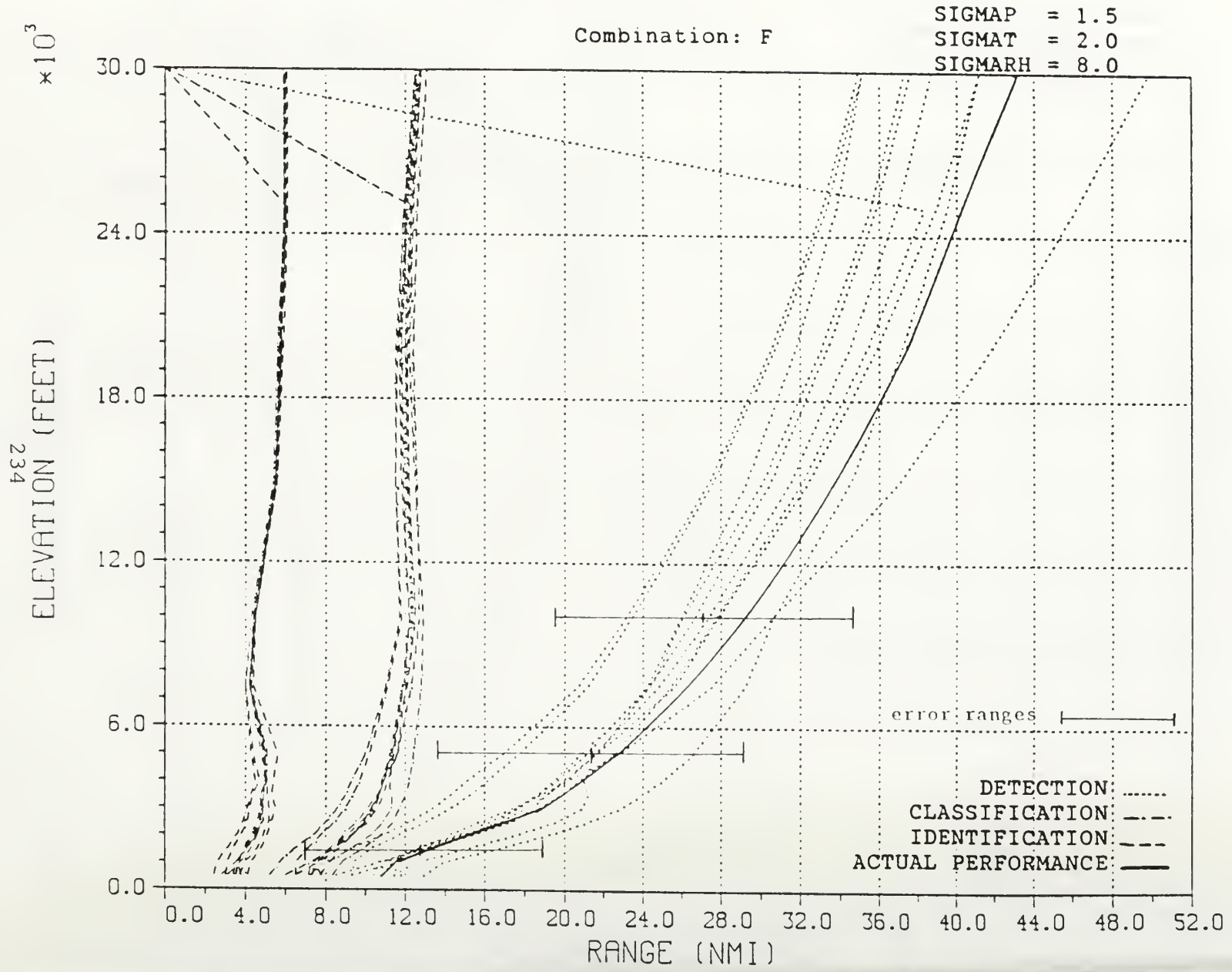


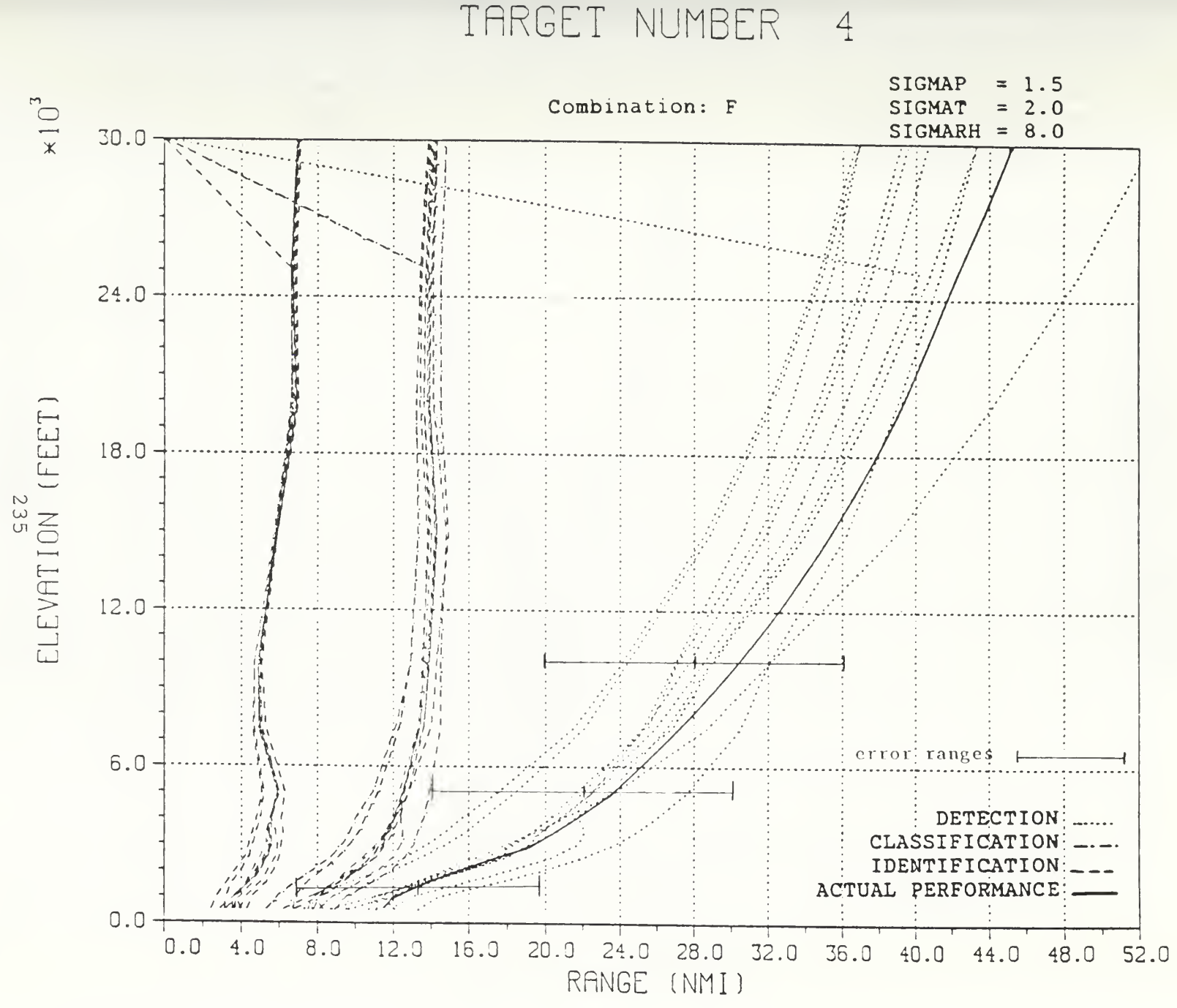

TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

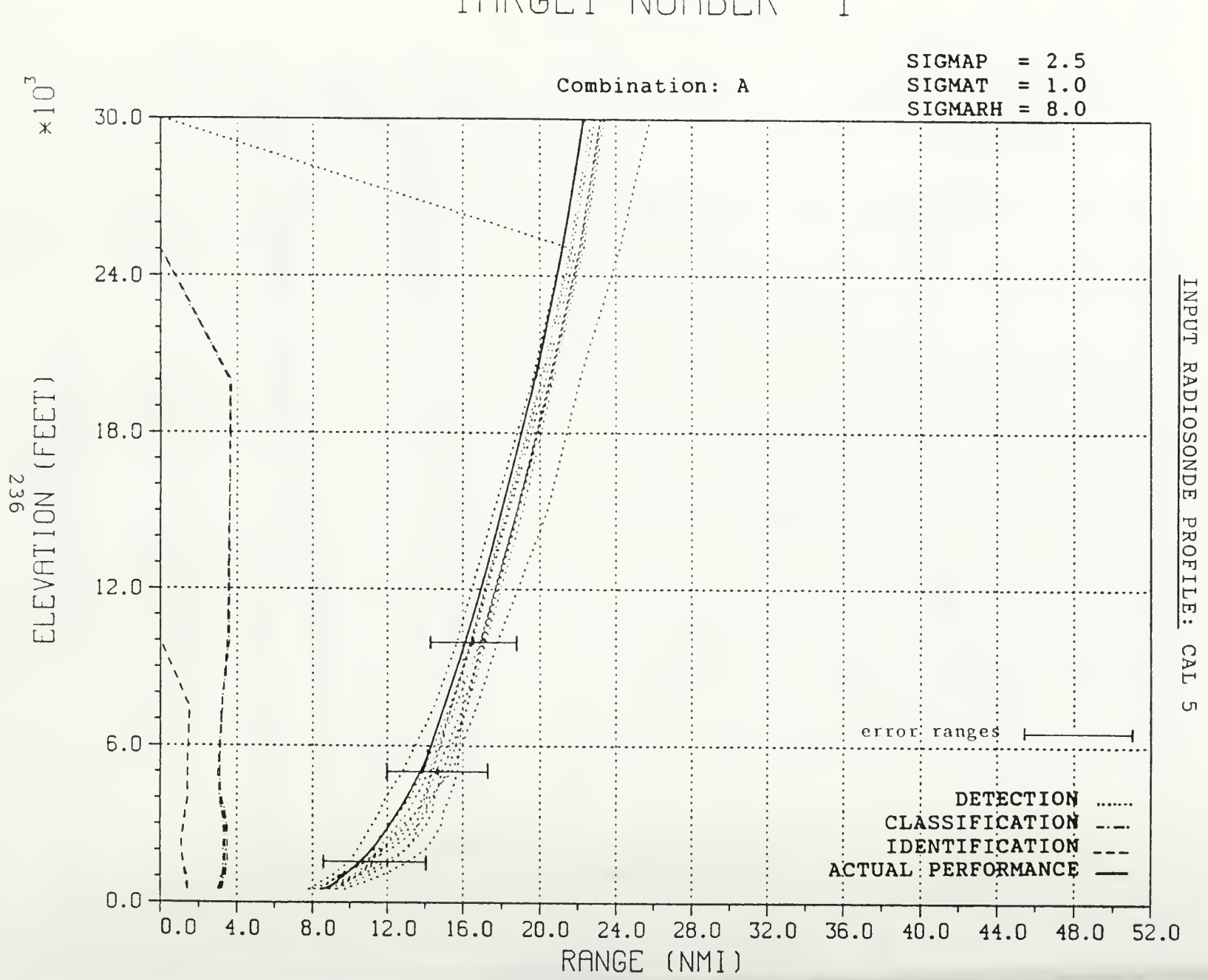

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 4

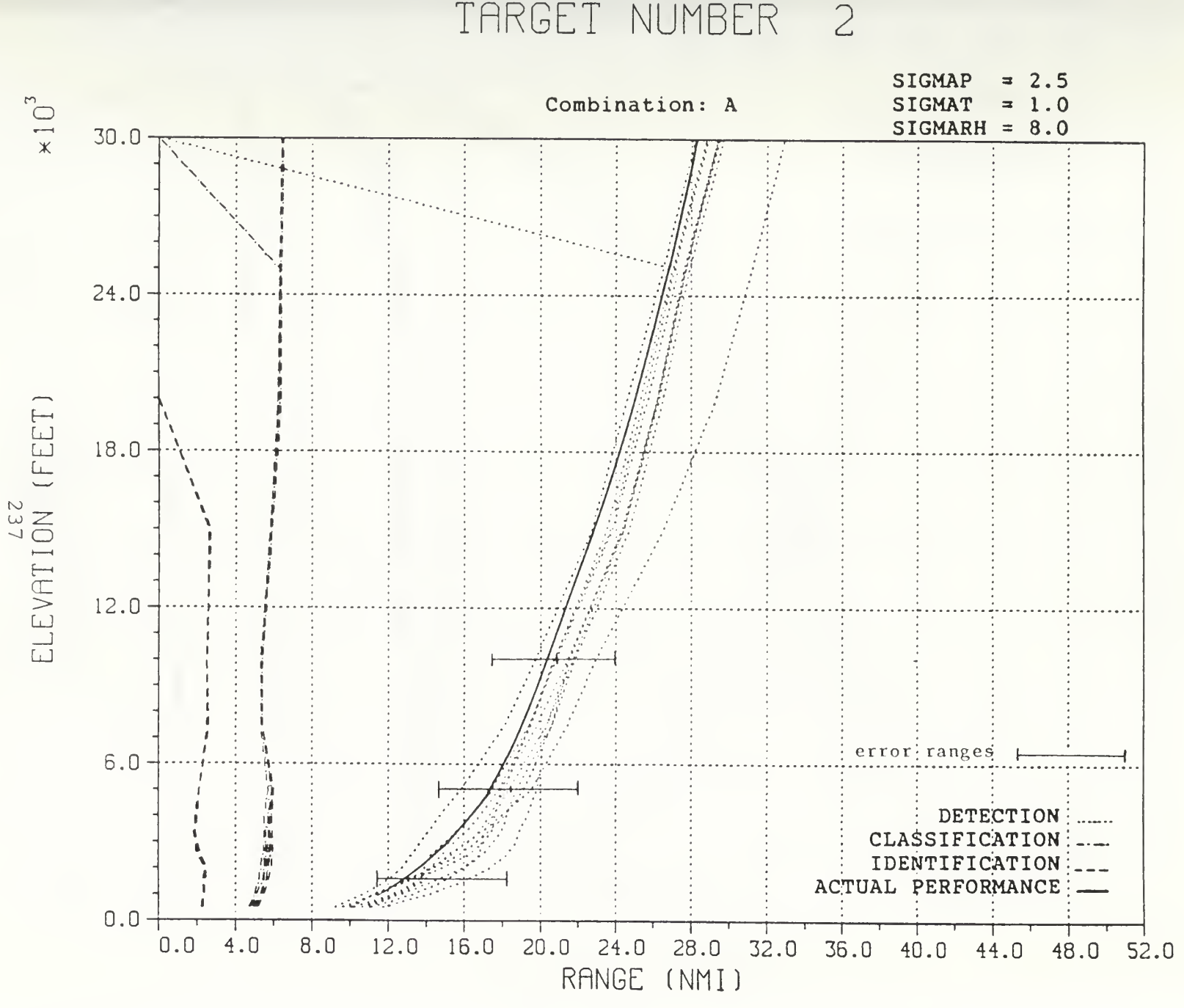

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

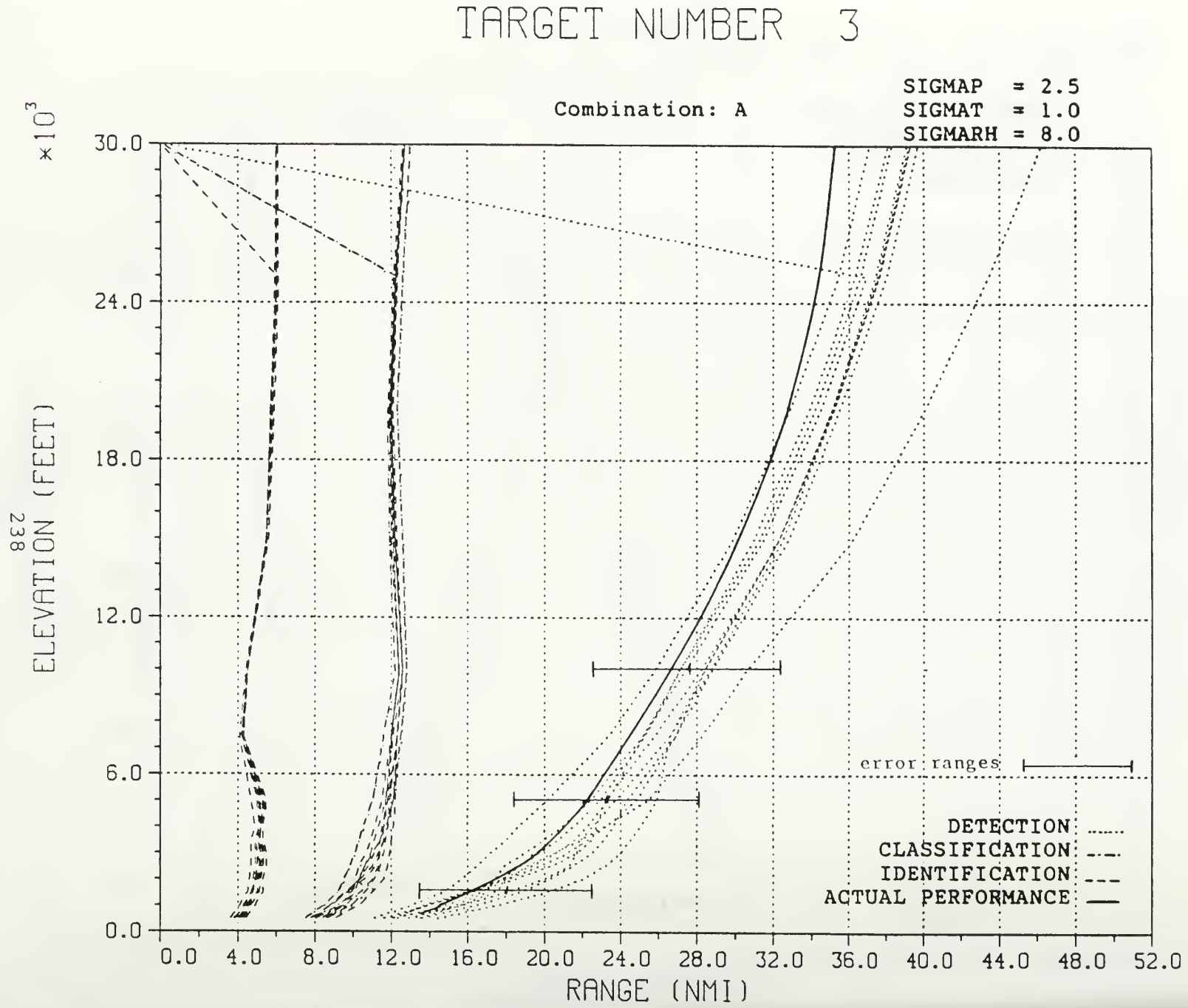
TARGET NUMBER 3

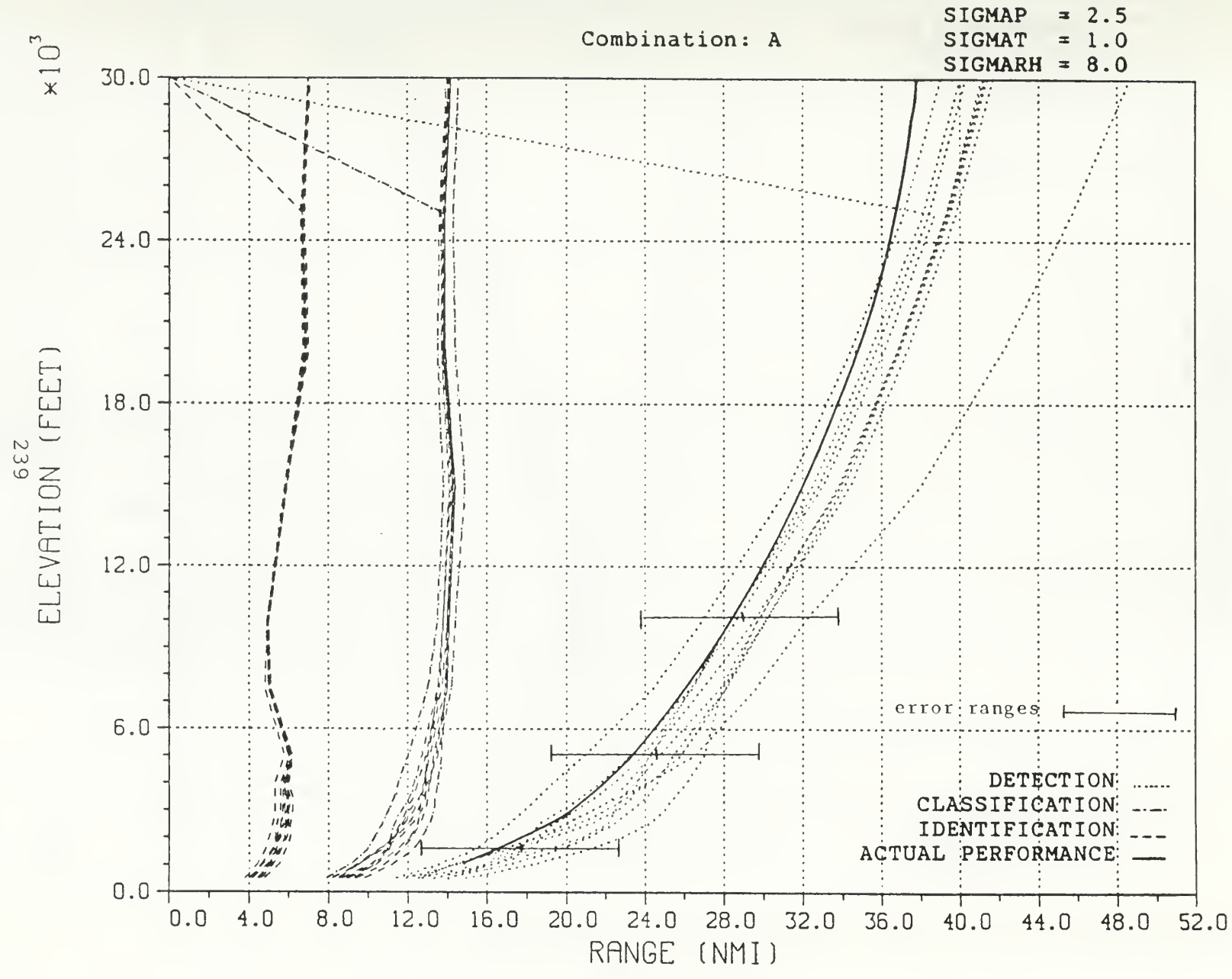


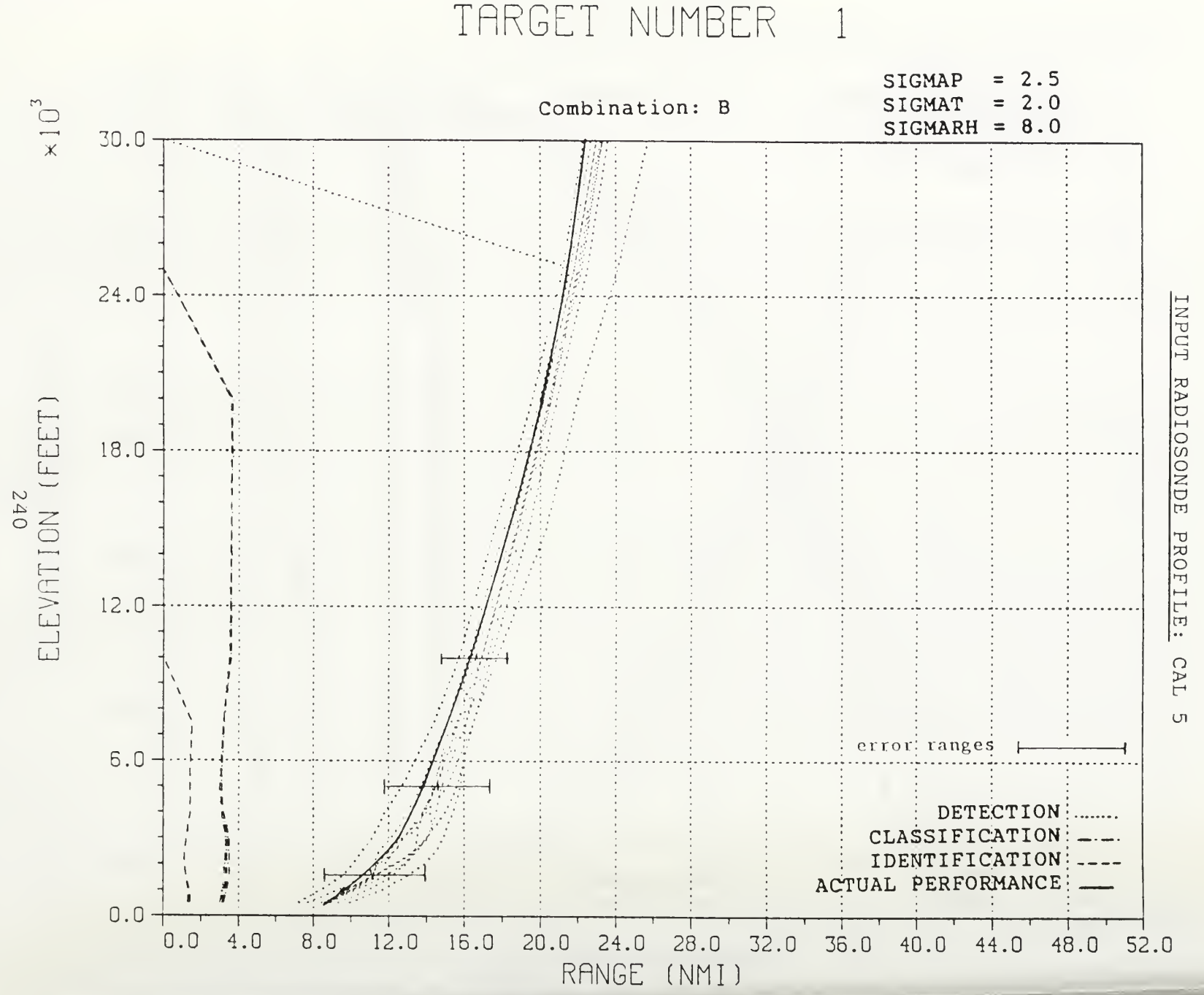

TARGET NUMBER 4
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
Combination: F
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

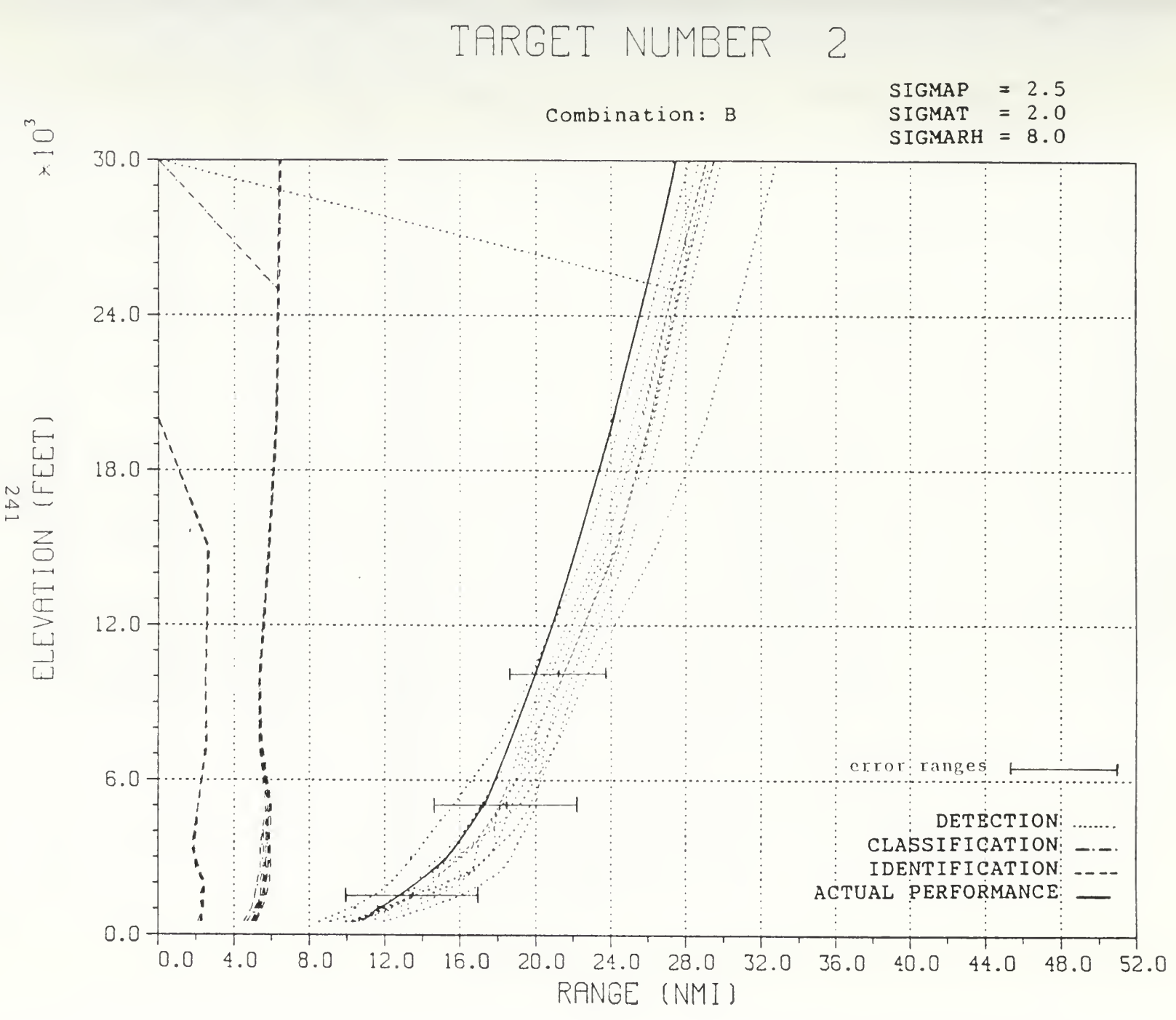

TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 5

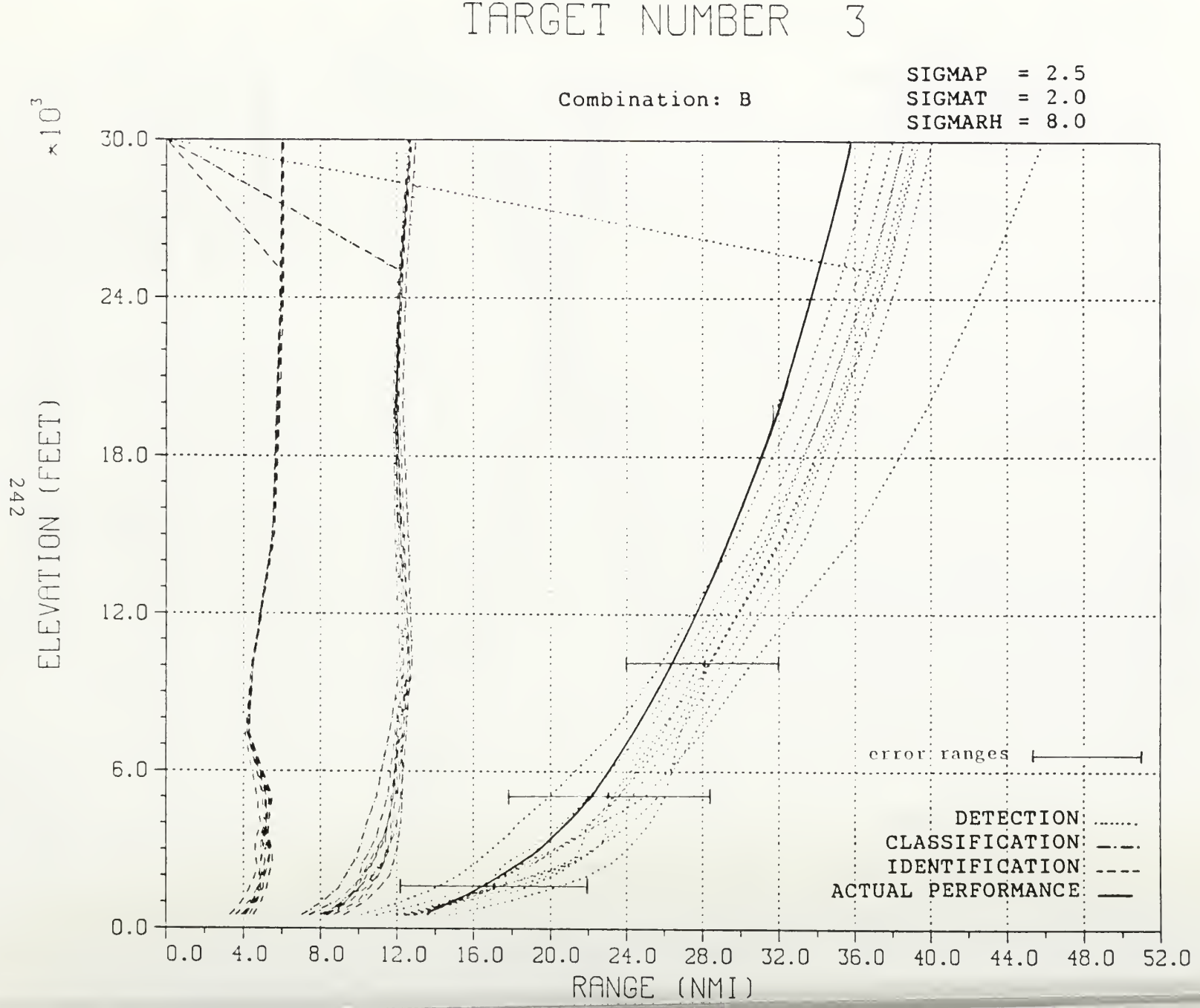

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

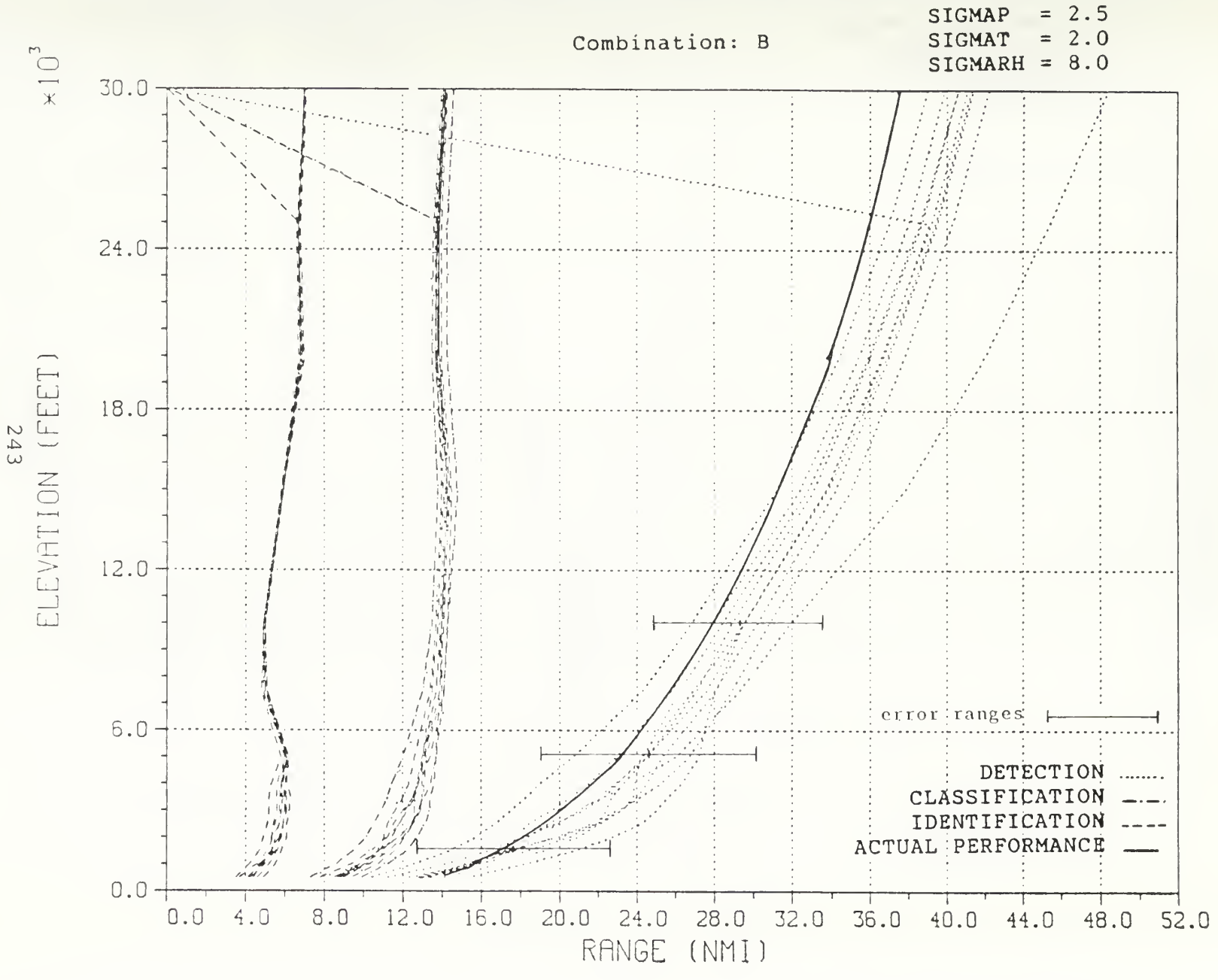

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
238

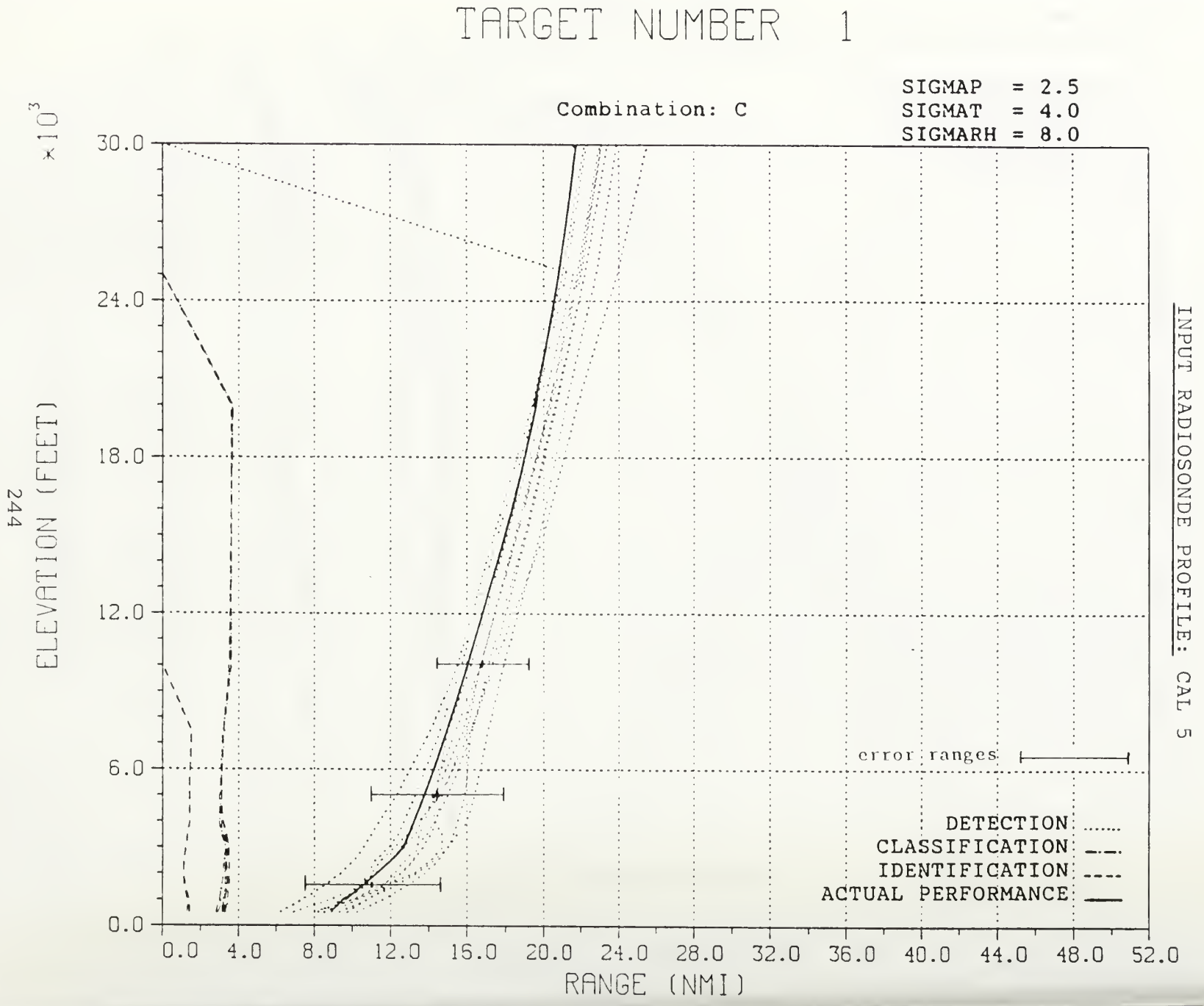

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

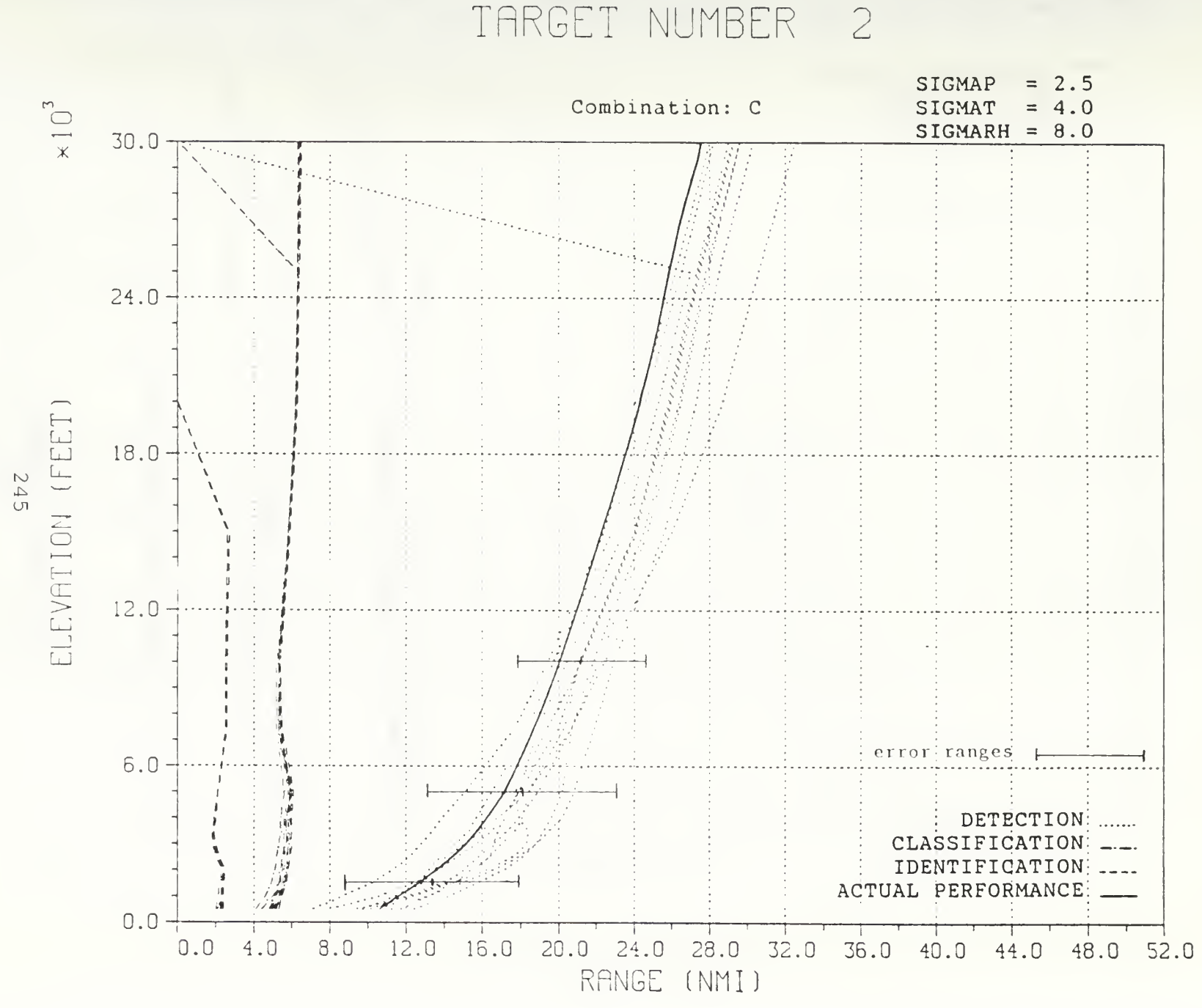

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 5
240

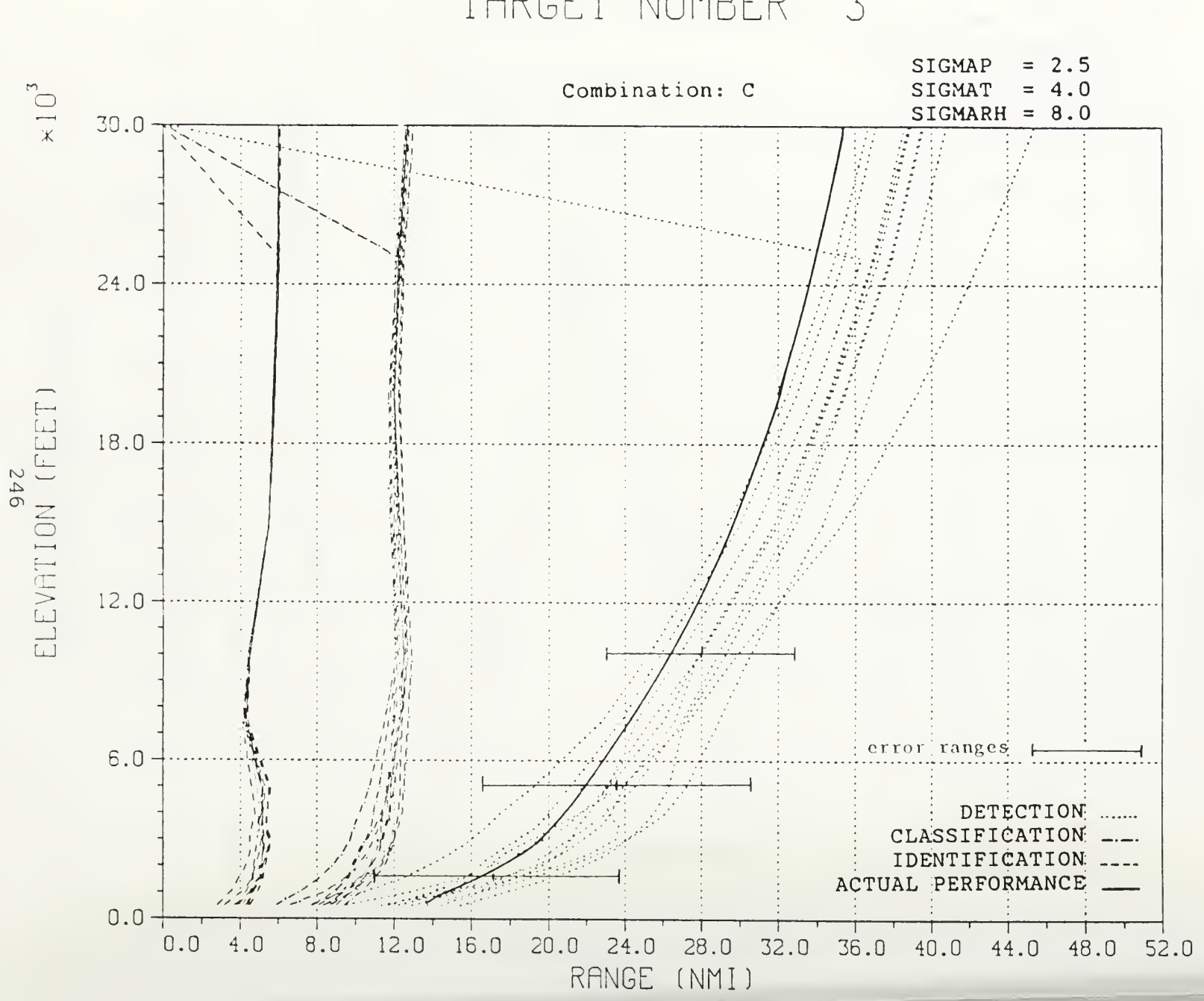

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

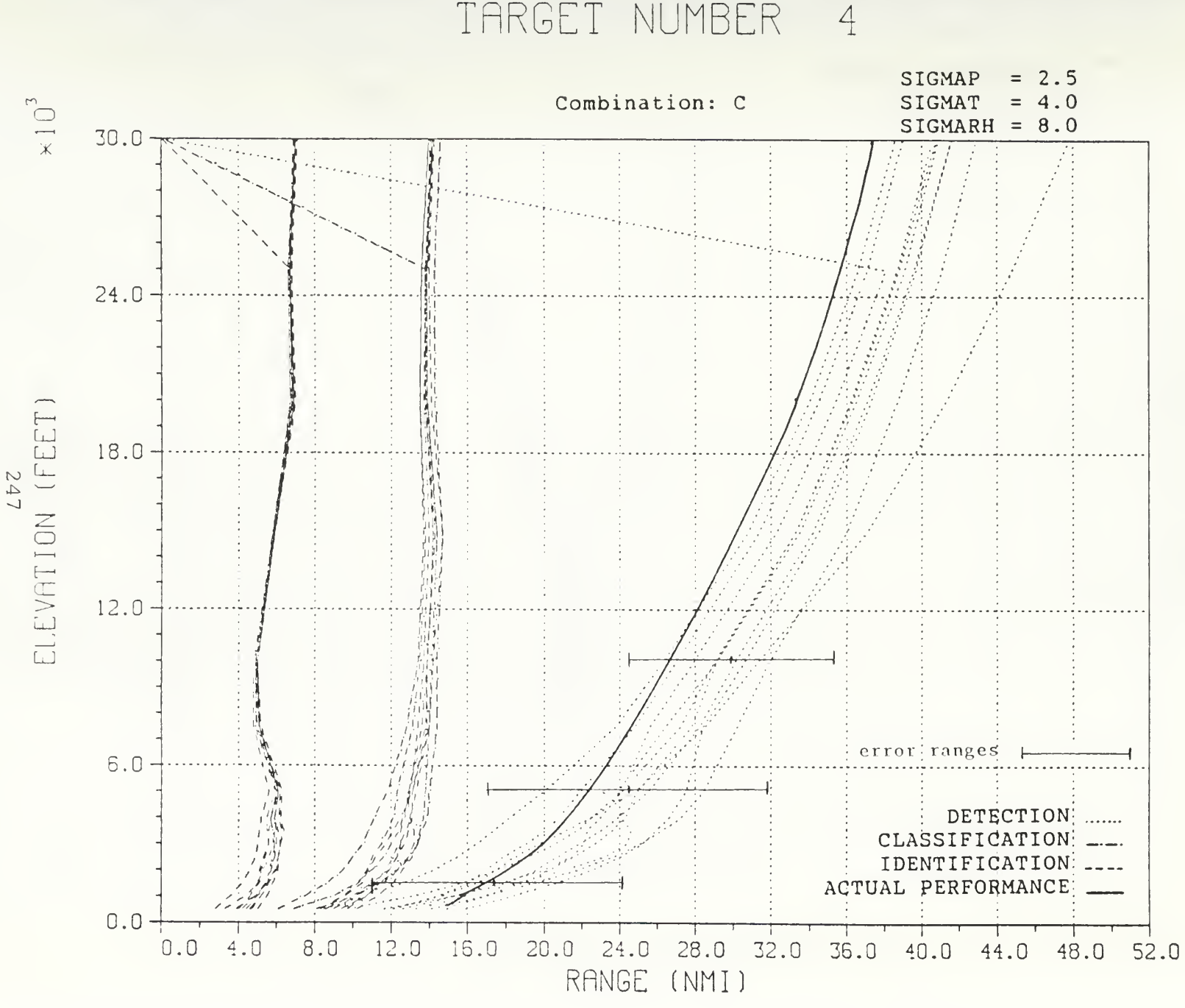

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

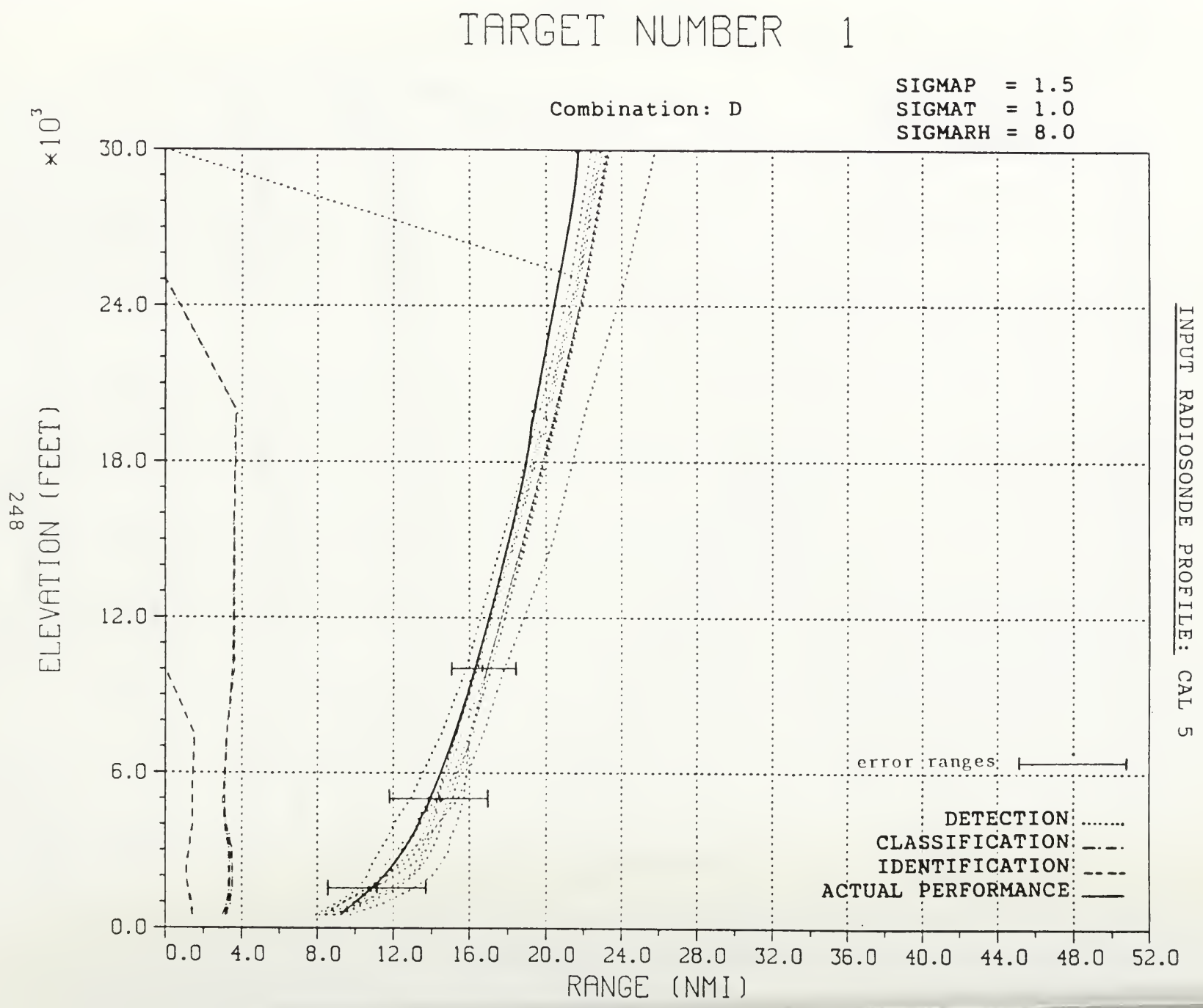

TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

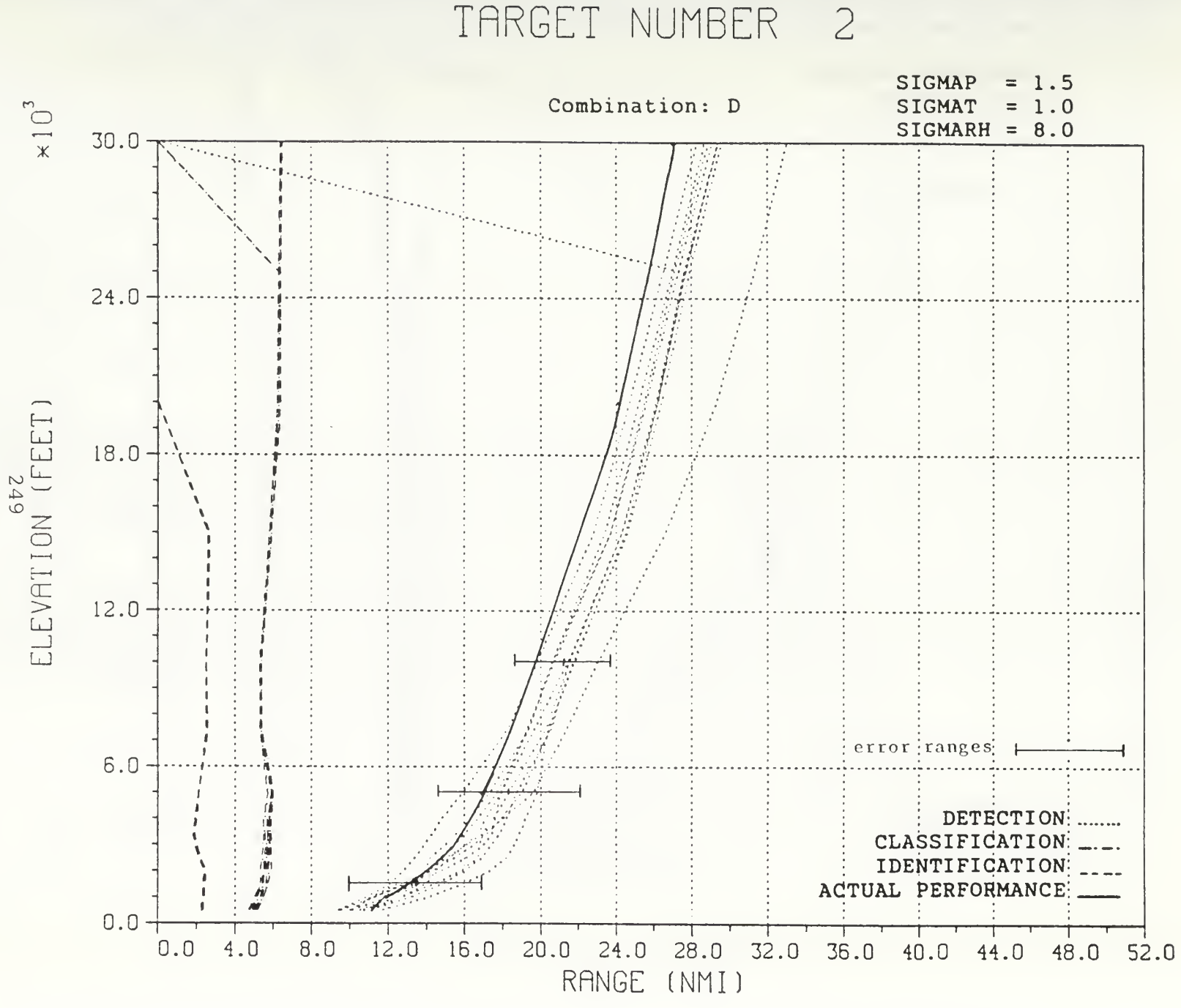

TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._.
IDENTIFICATION ----
ACTUAL PERFORMANCE ——
INPUT RADIOSONDE PROFILE: CAL 5

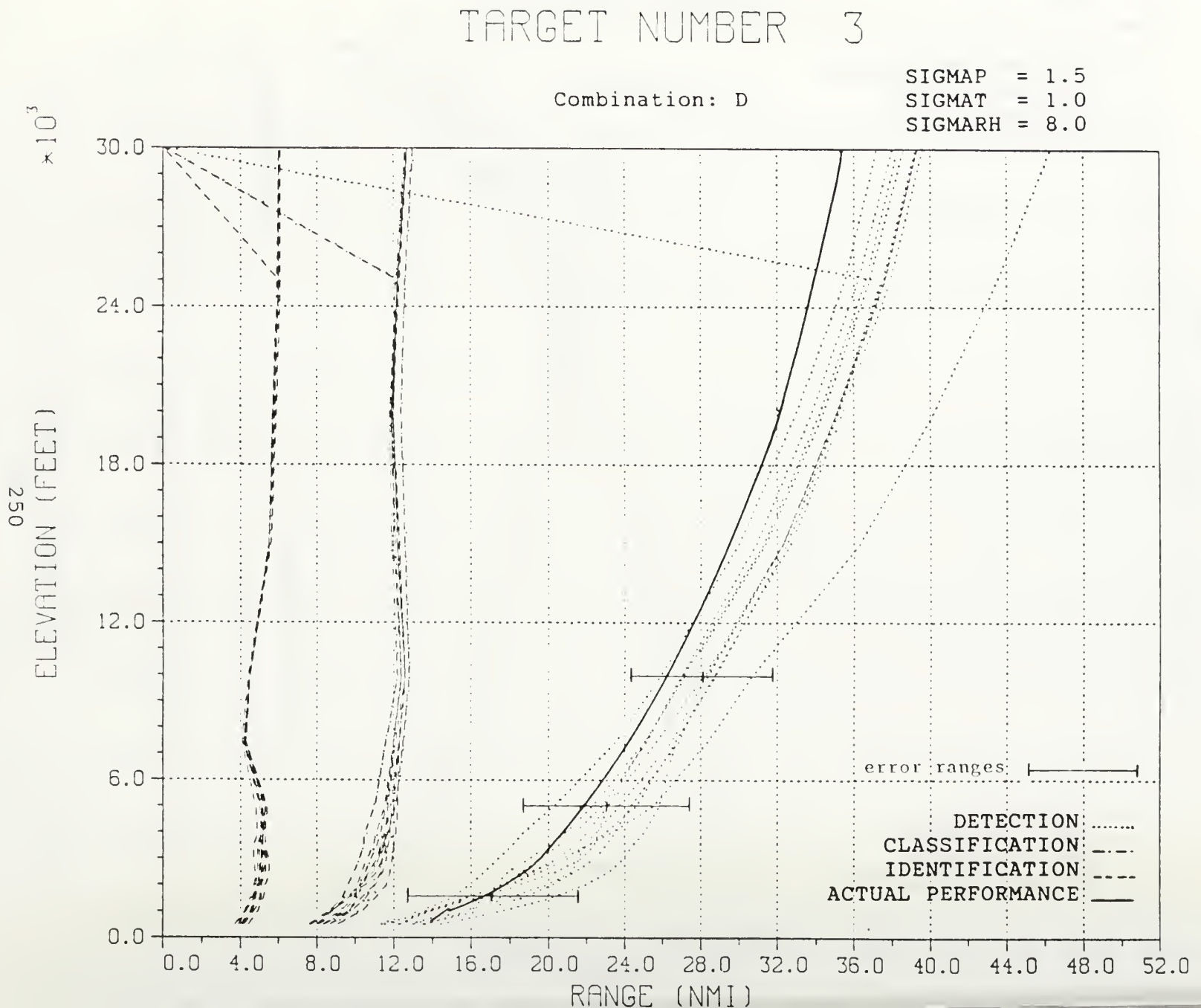

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

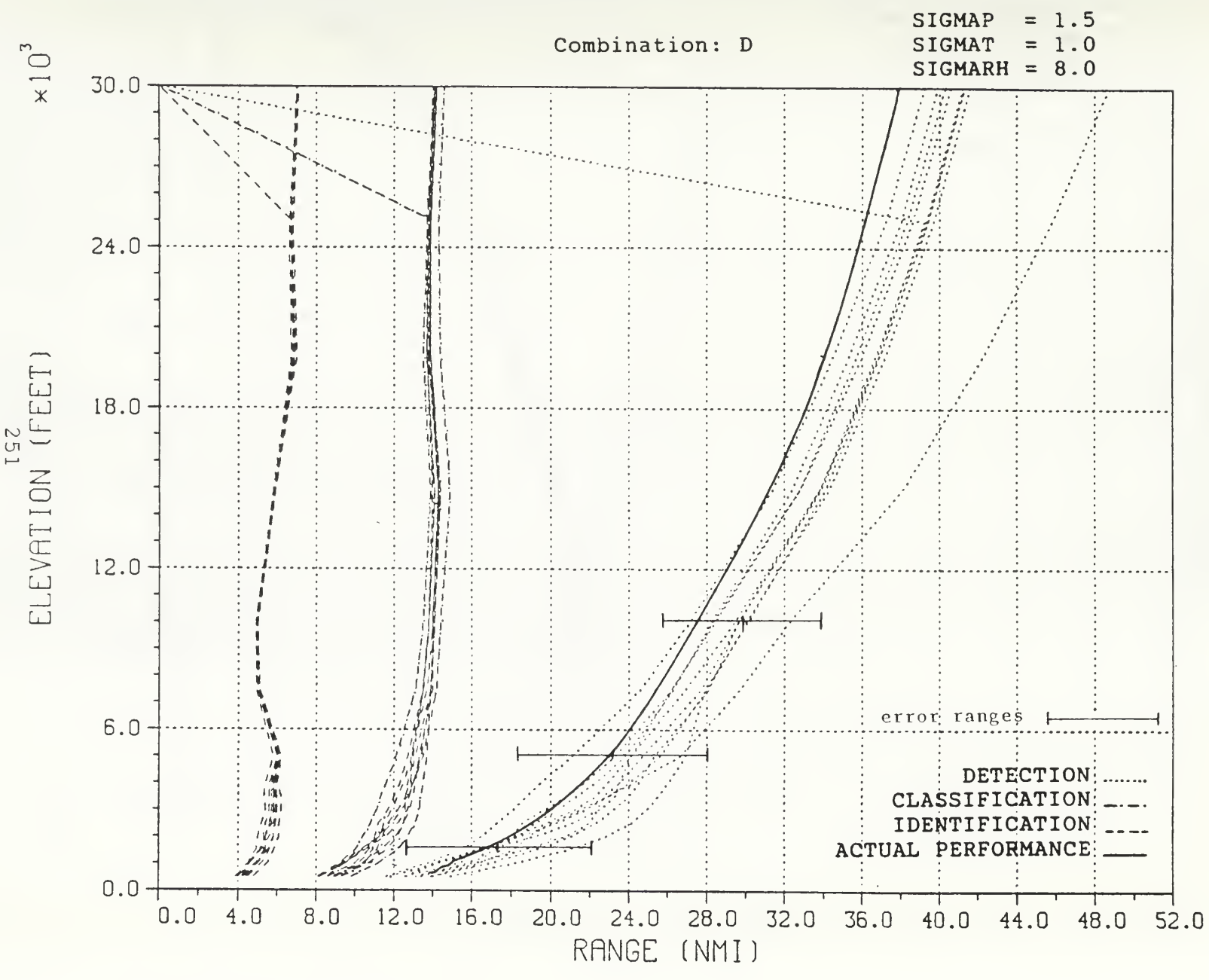

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

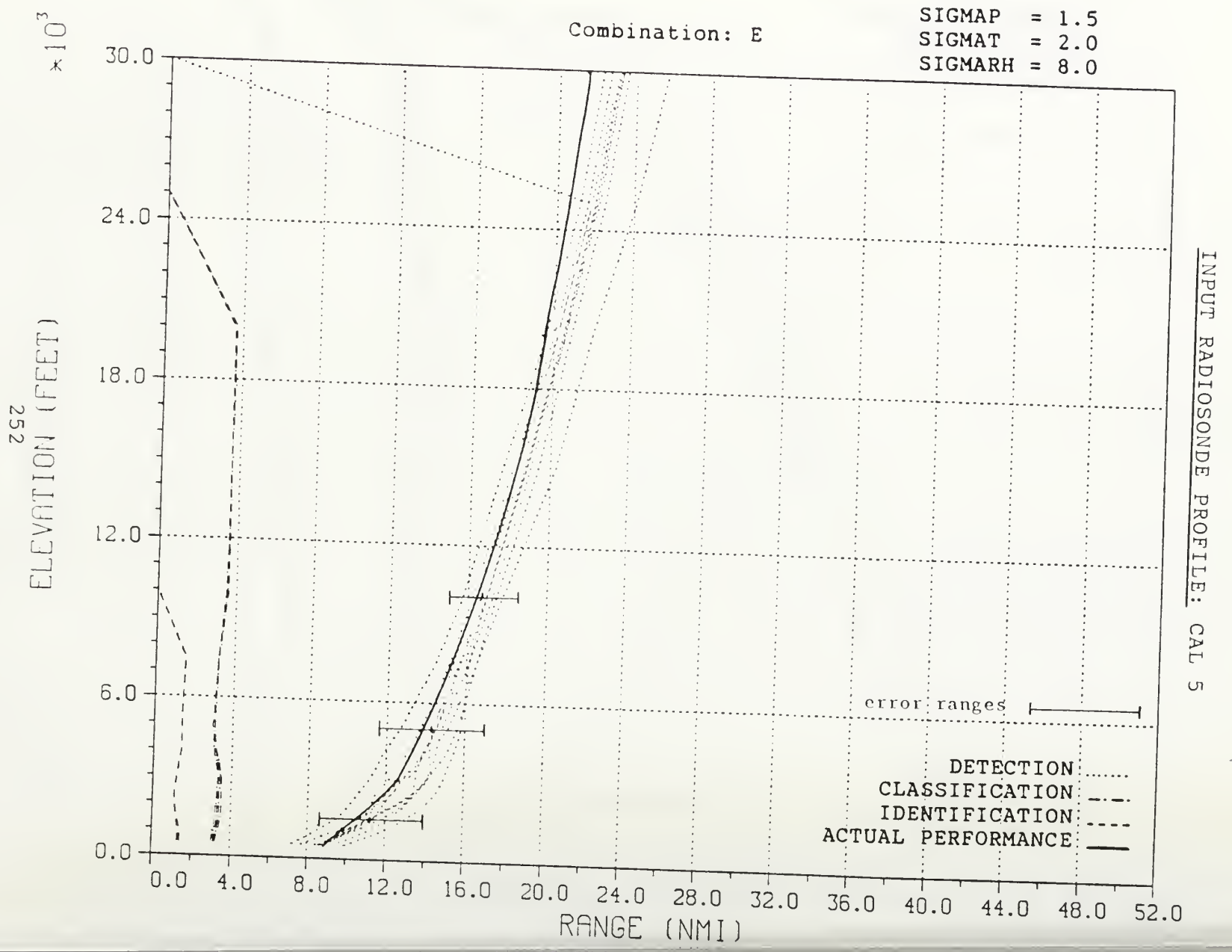

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 5

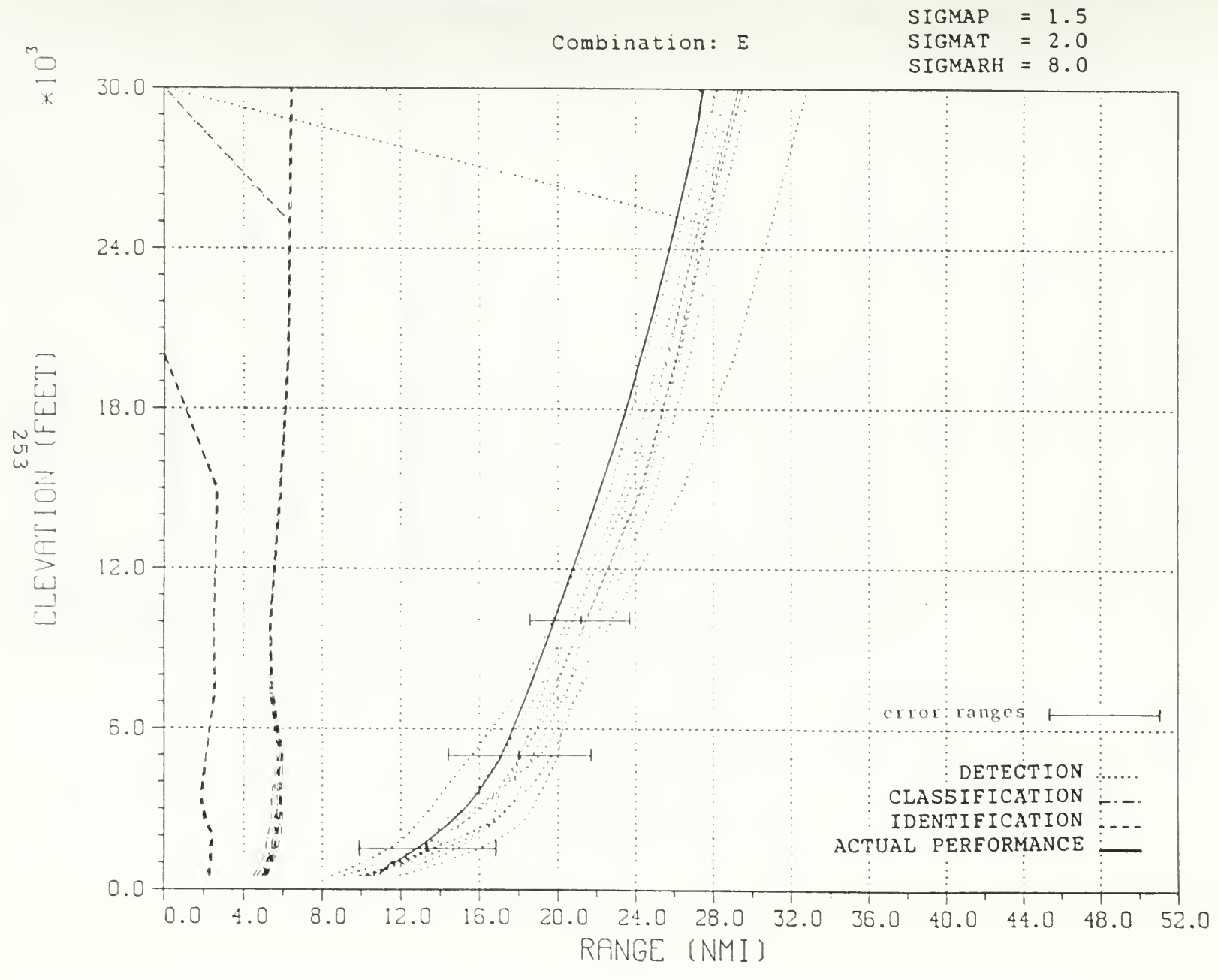

TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

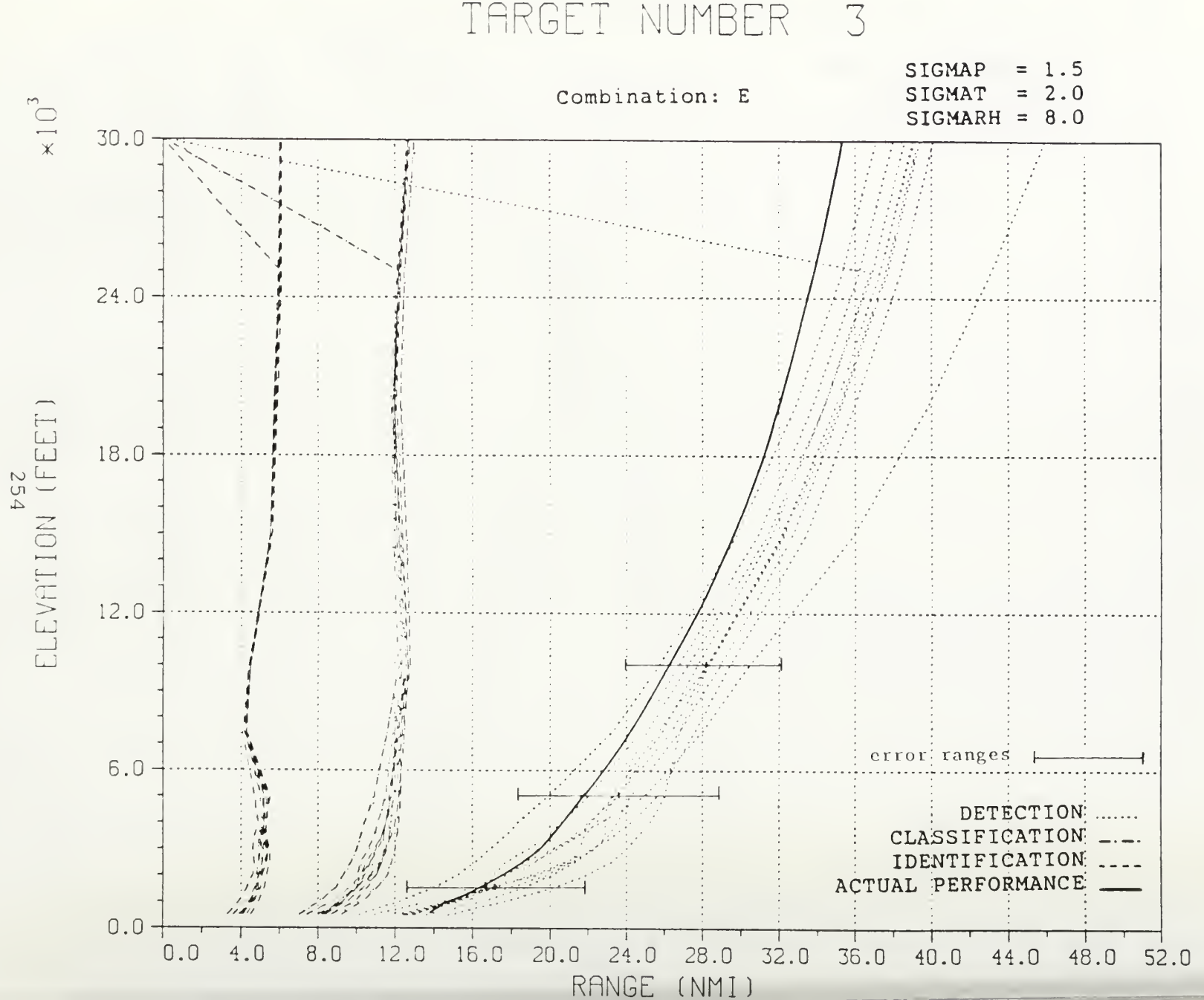

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
250
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

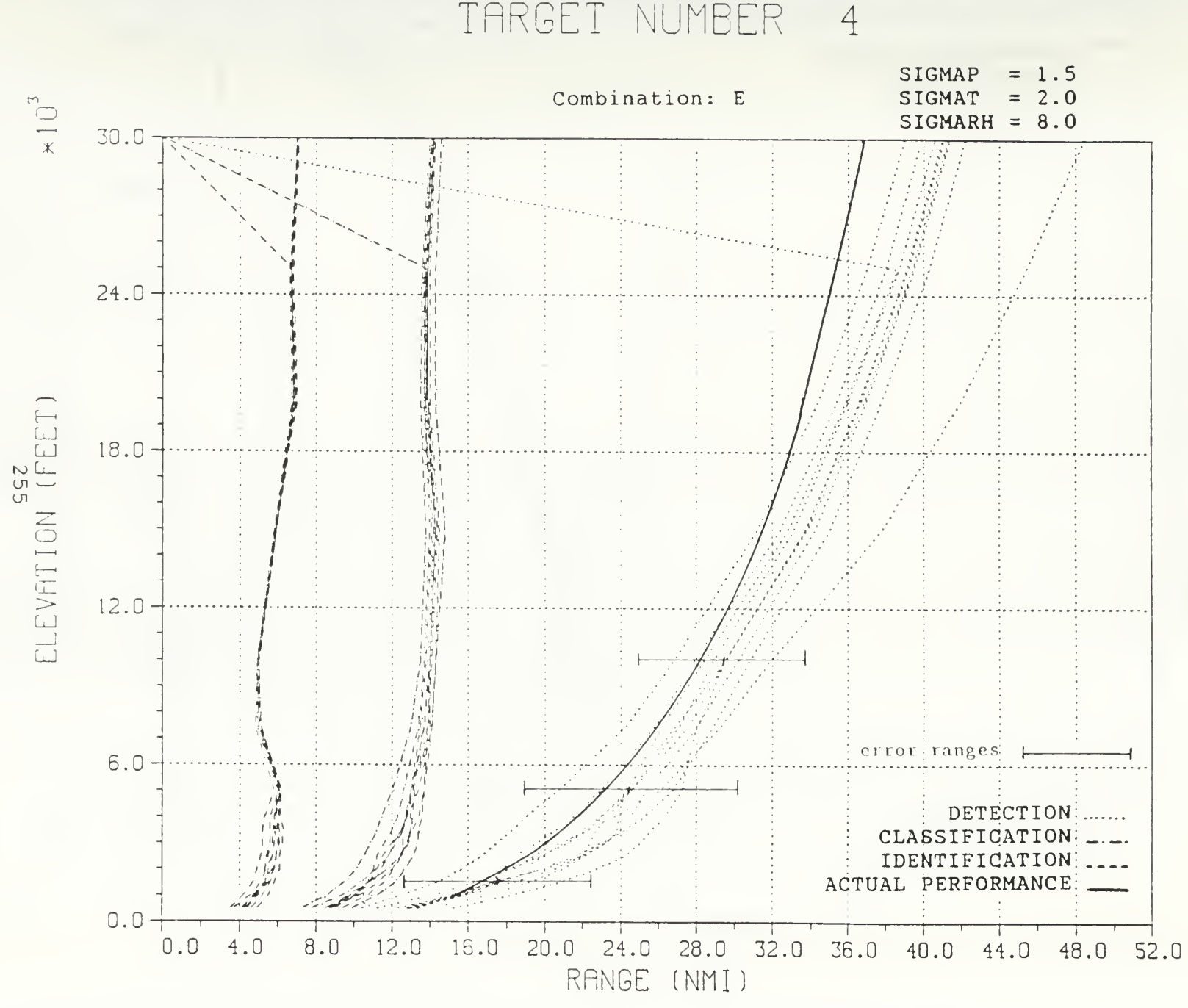

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

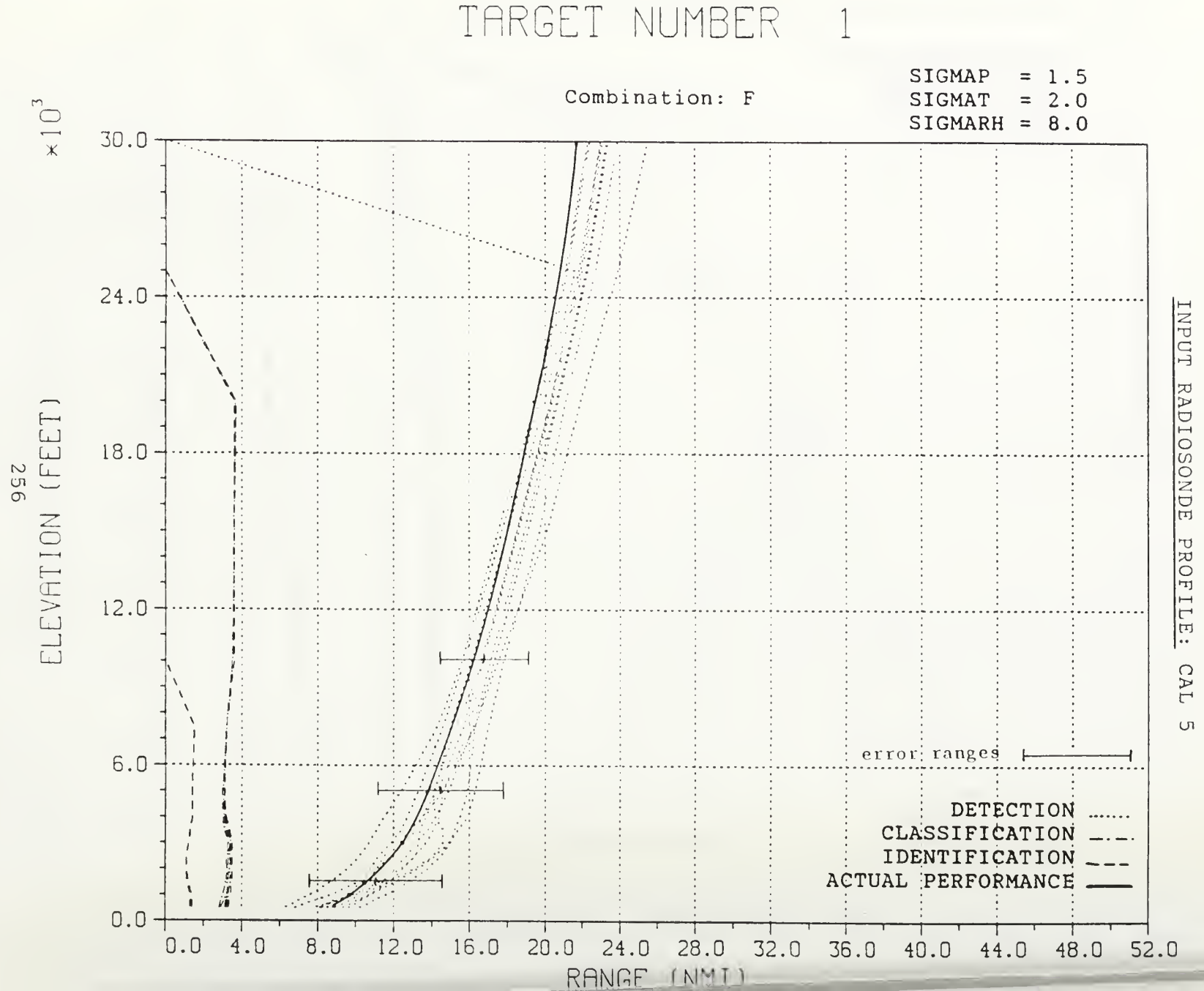
TARGET NUMBER 1

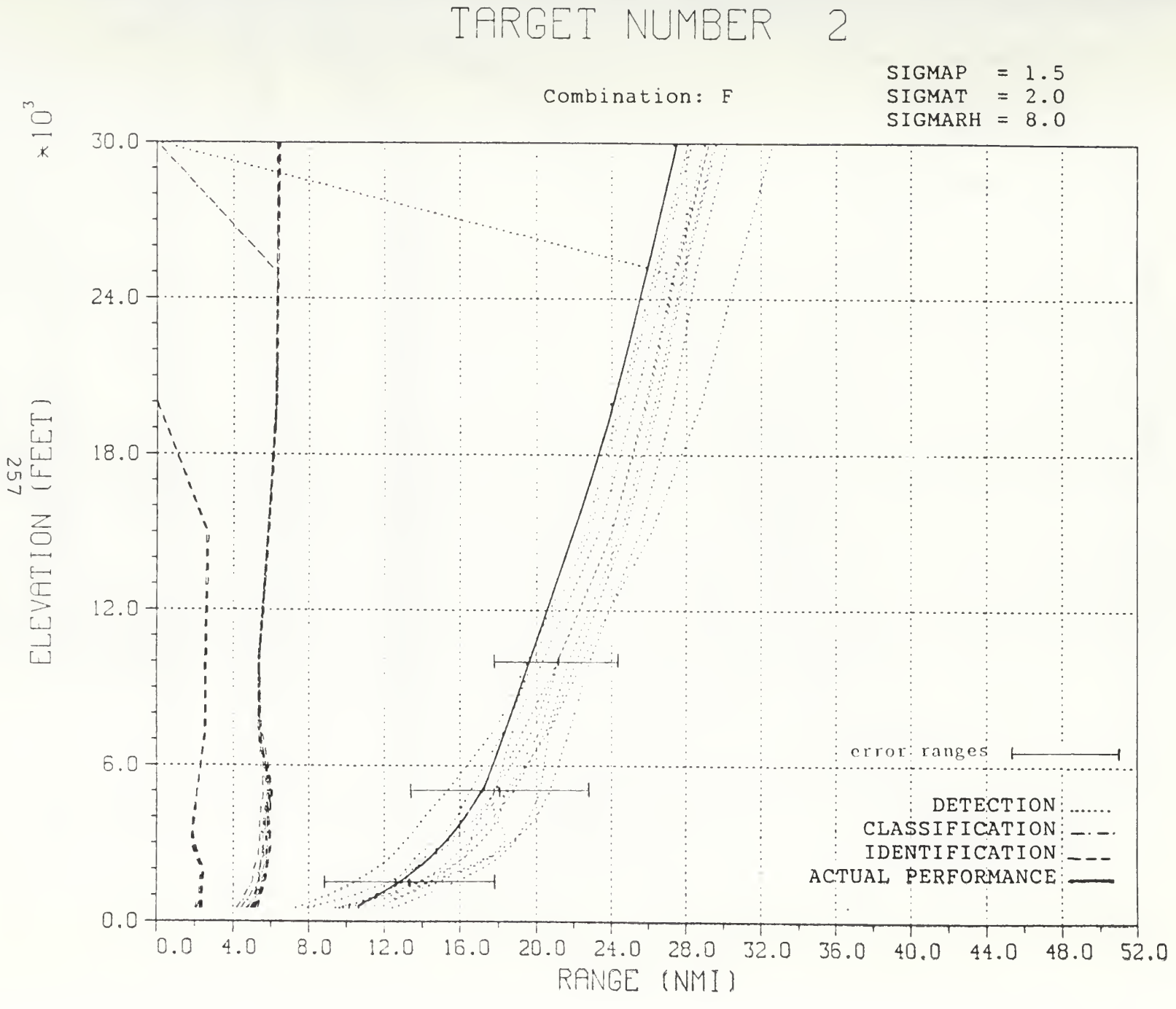


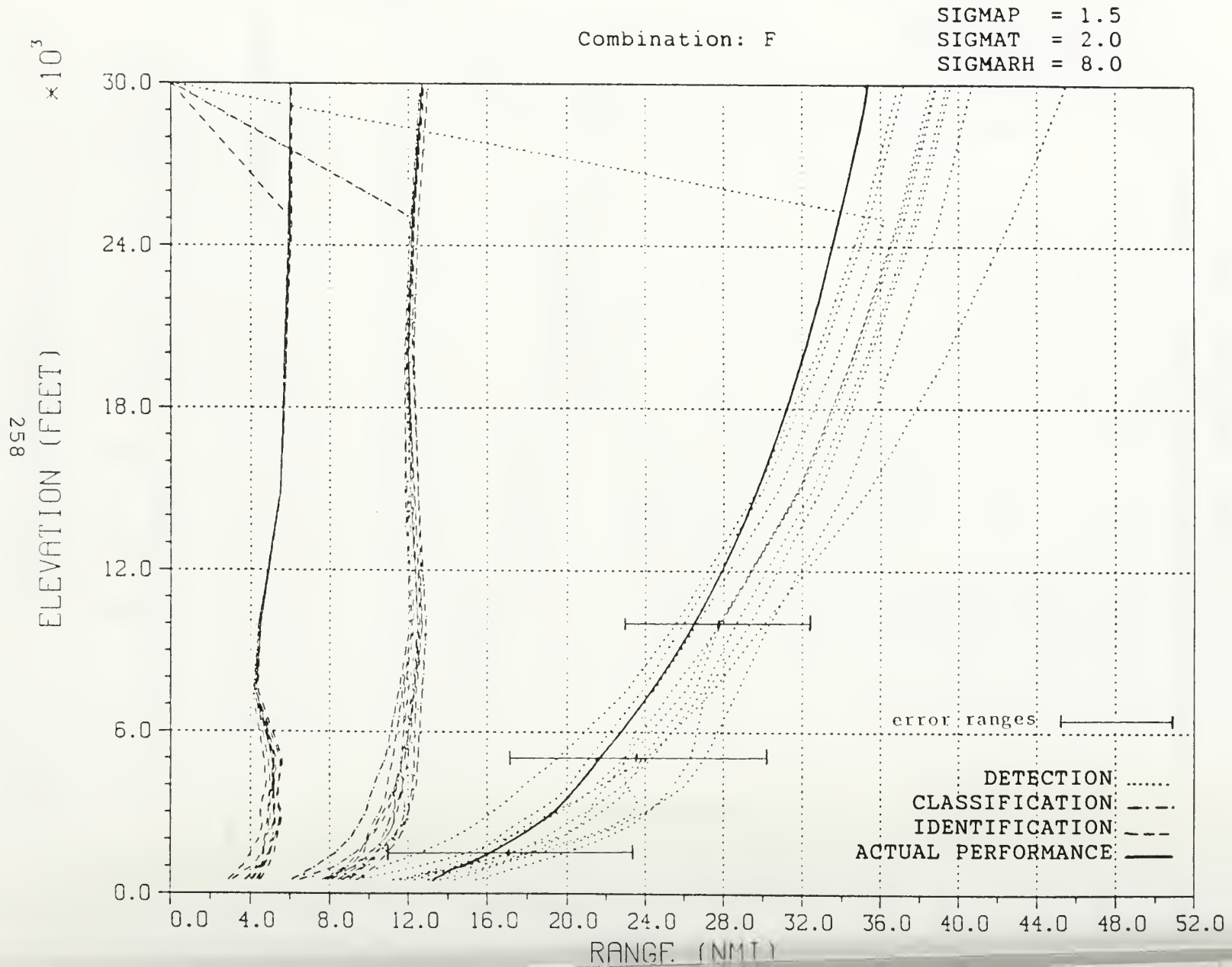

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

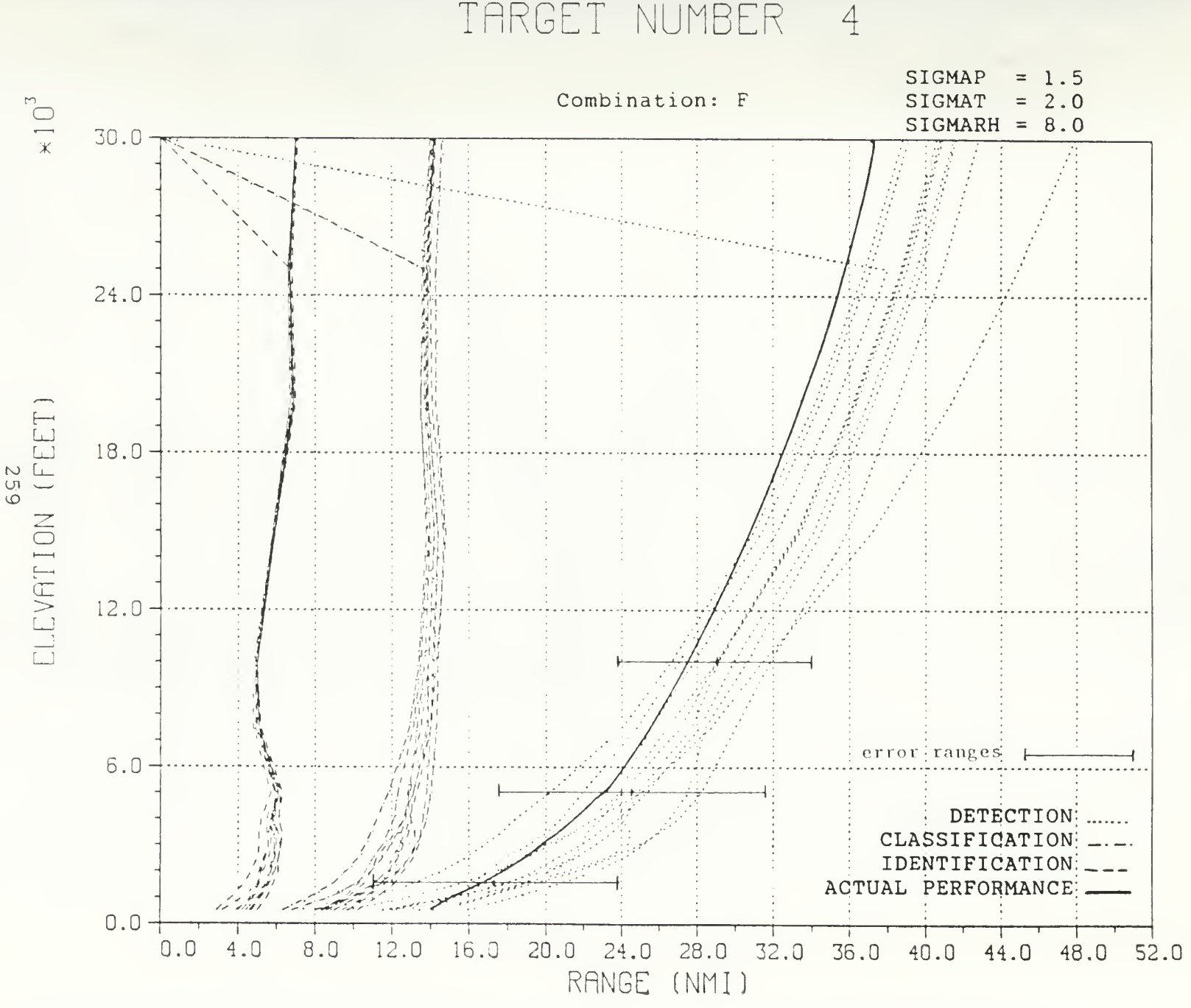

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
255

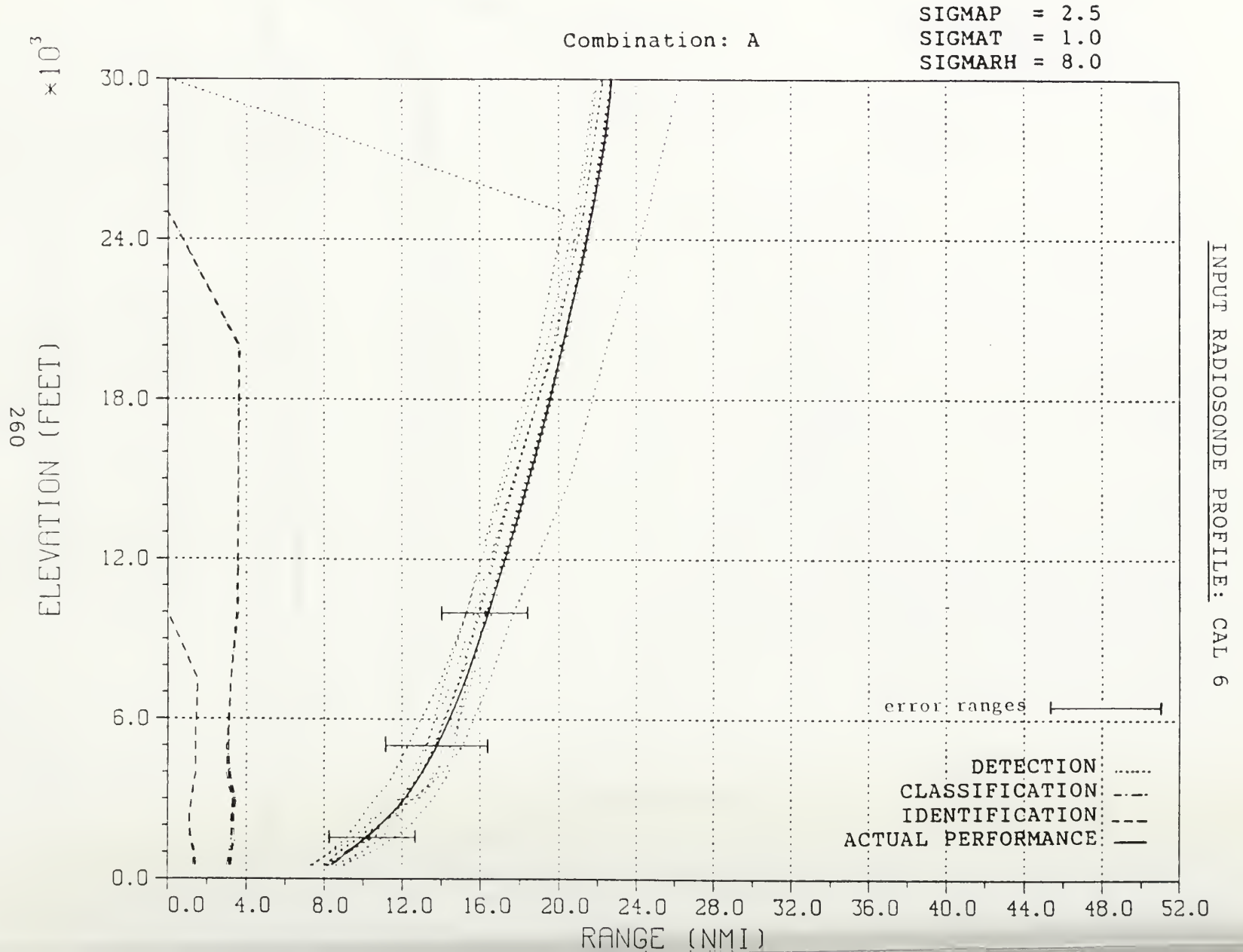

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._._
IDENTIFICATION _ _ _
ACTUAL PERFORMANCE ——
INPUT RADIOSONDE PROFILE: CAL 5
256

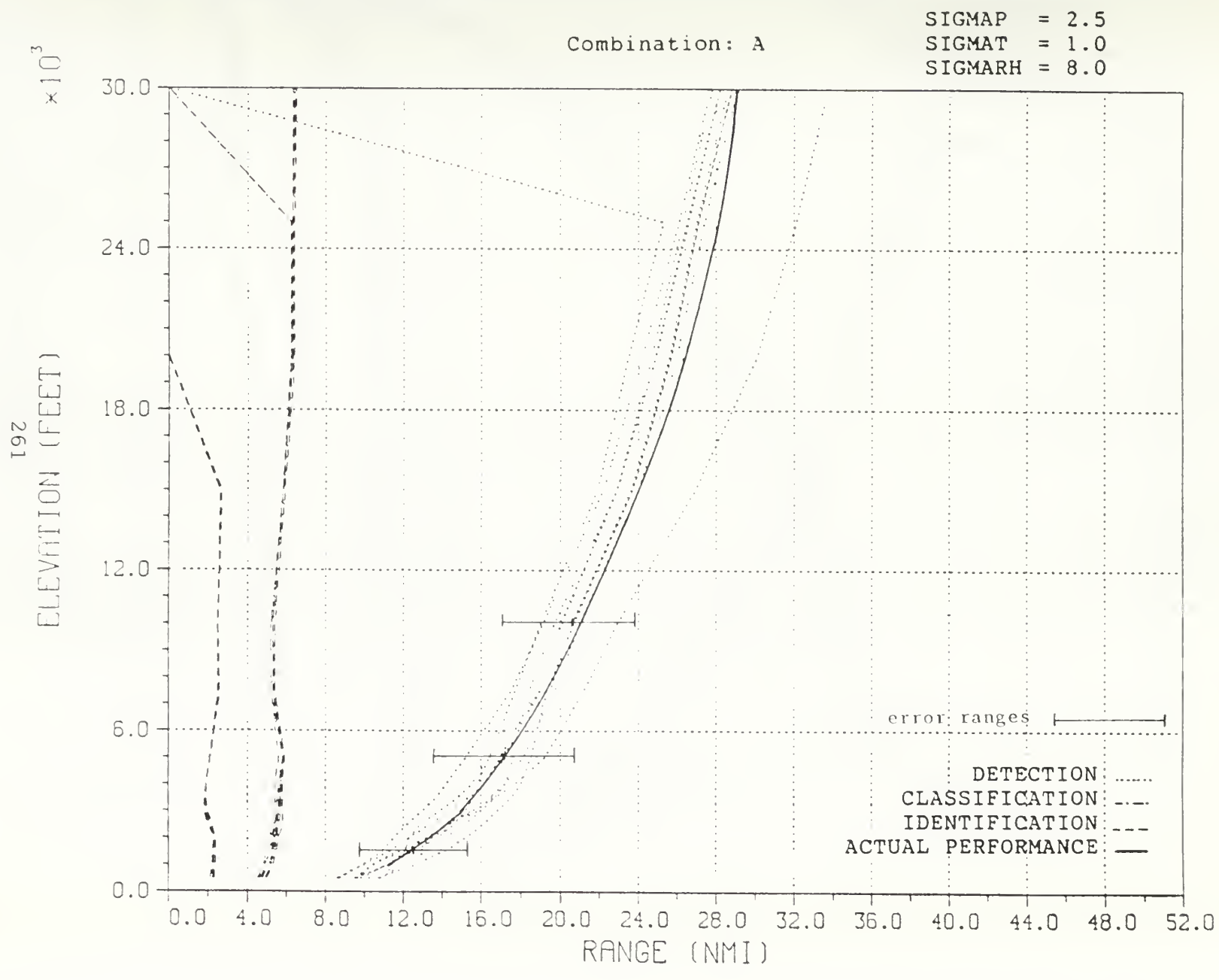

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

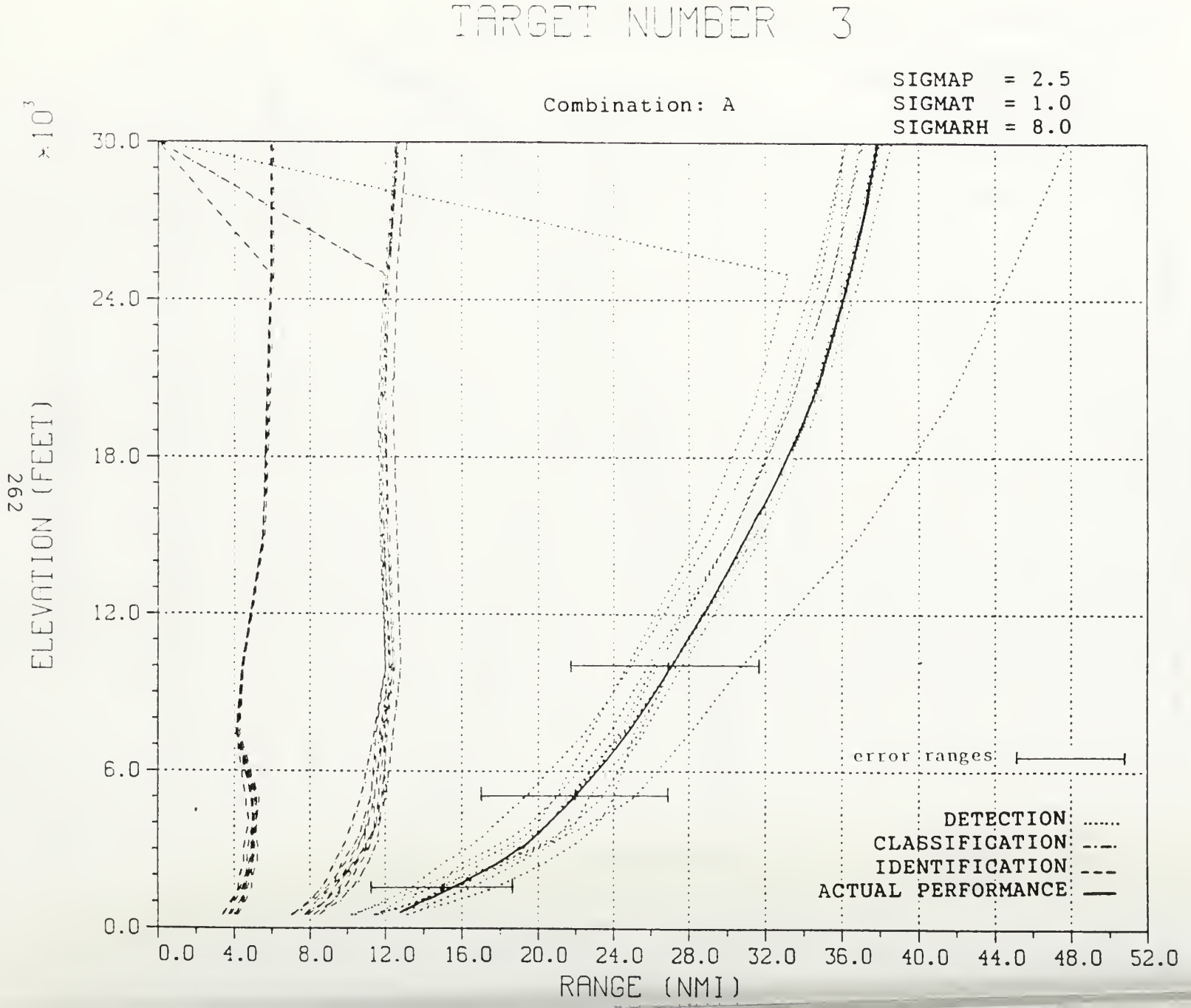

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._._
IDENTIFICATION _ _ _
ACTUAL PERFORMANCE ——

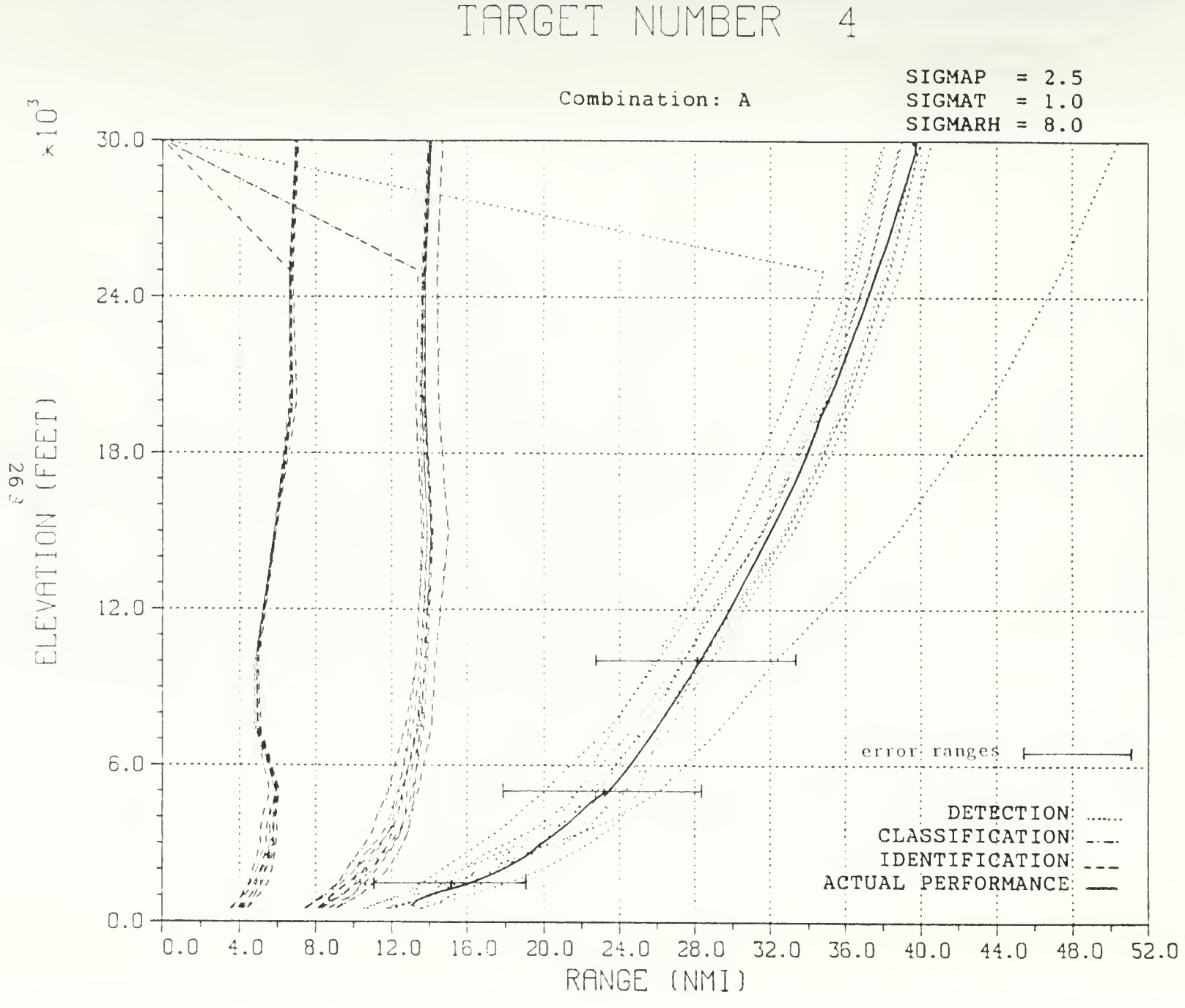

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
259

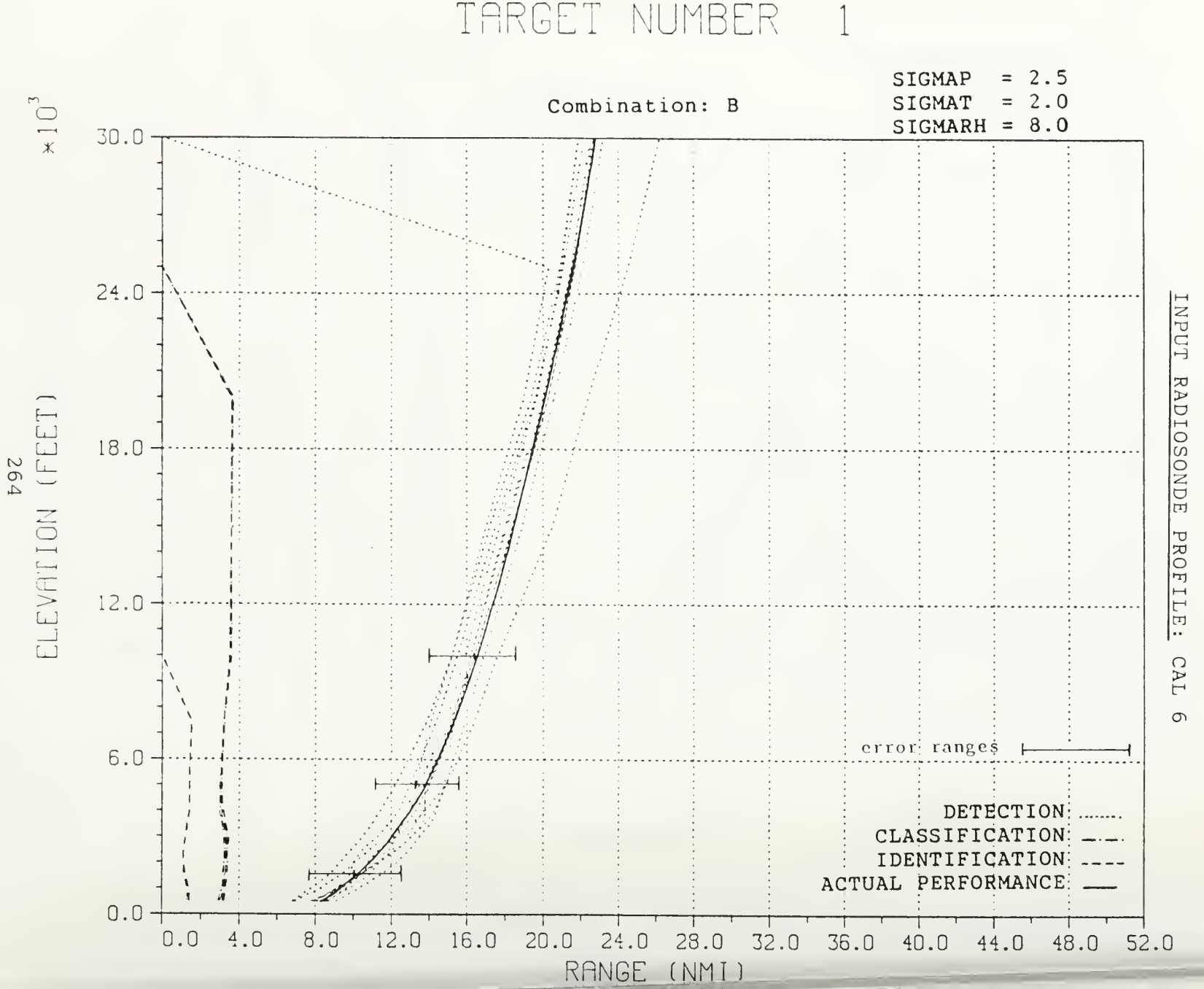
TARGET NUMBER 1

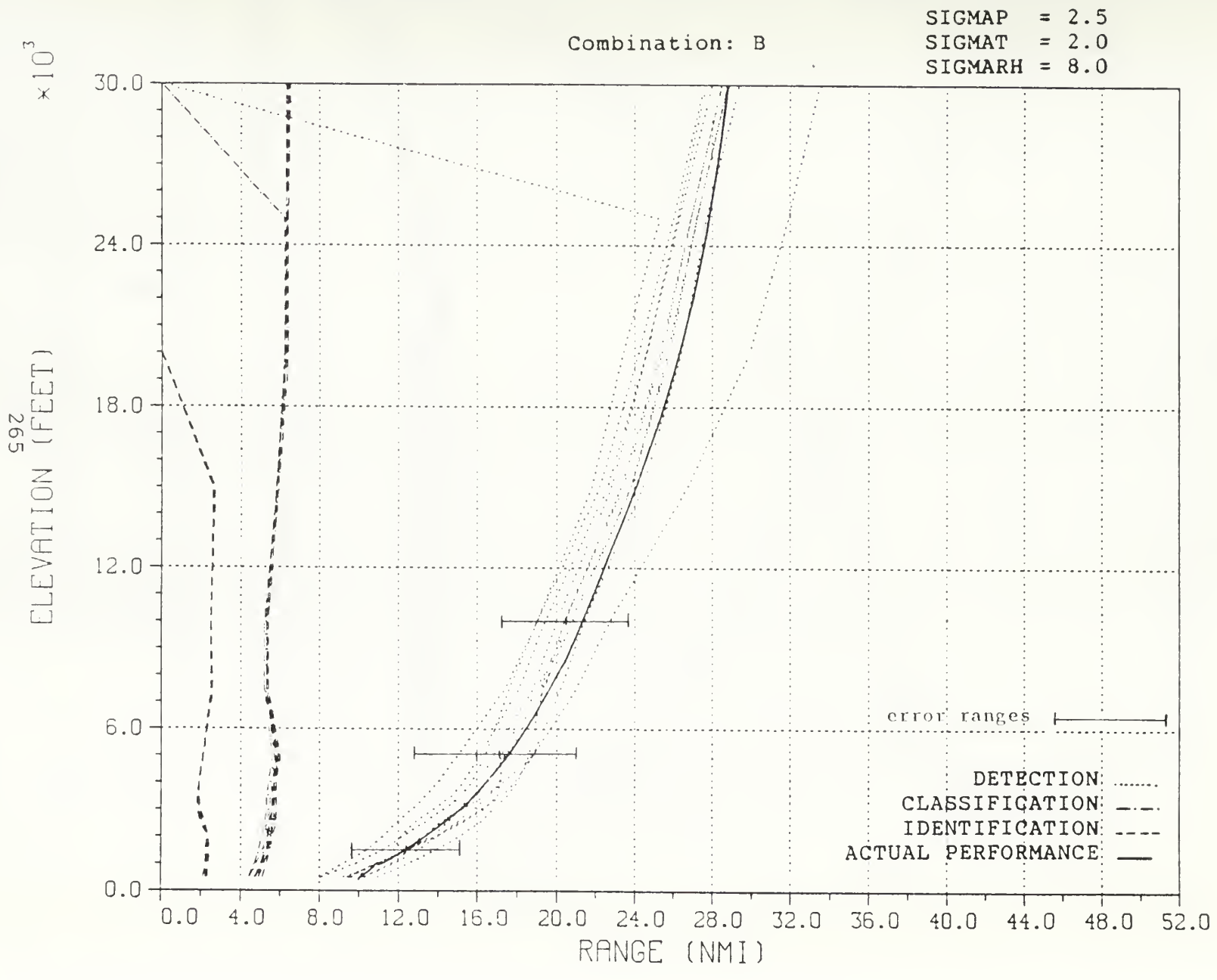


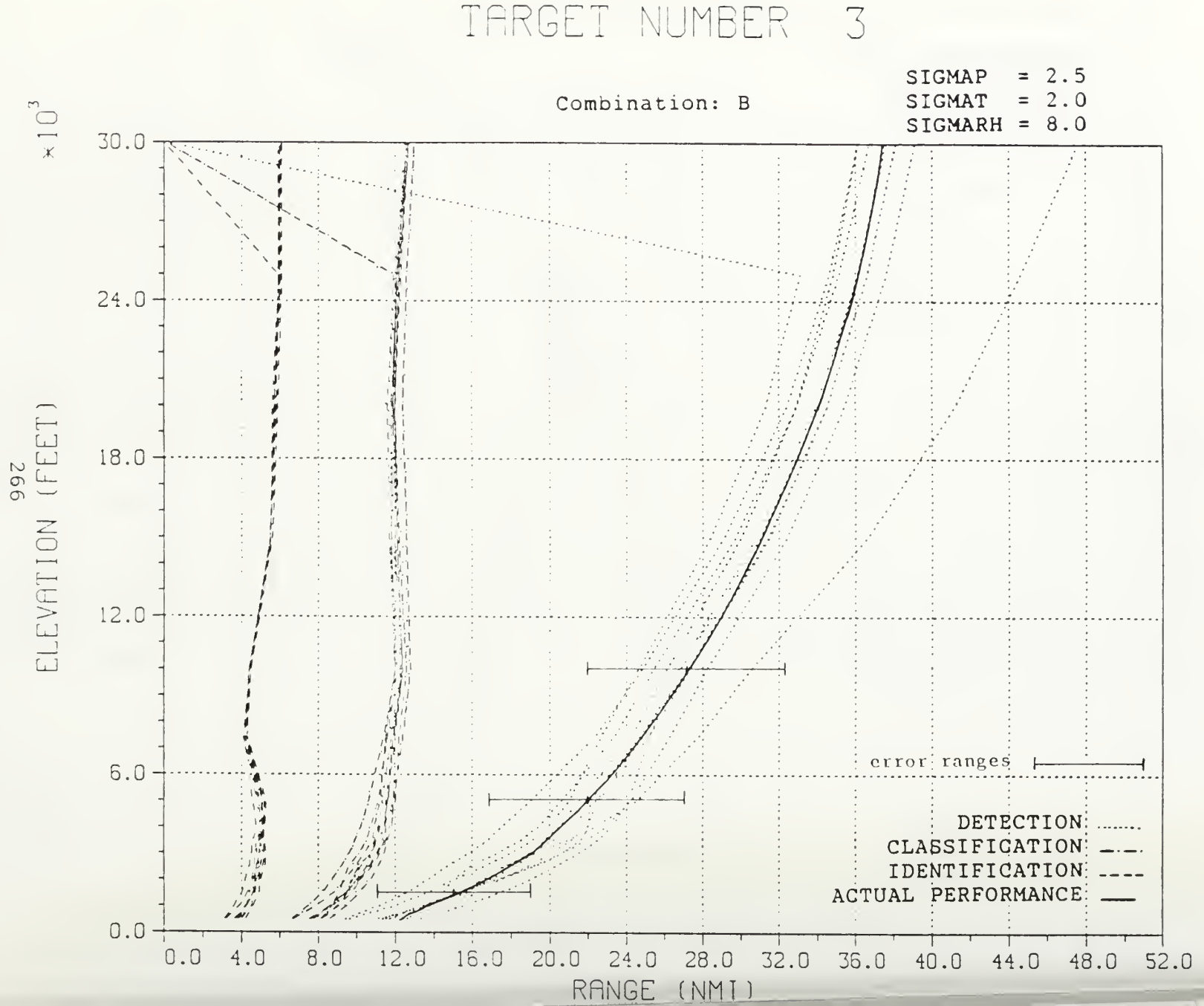

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

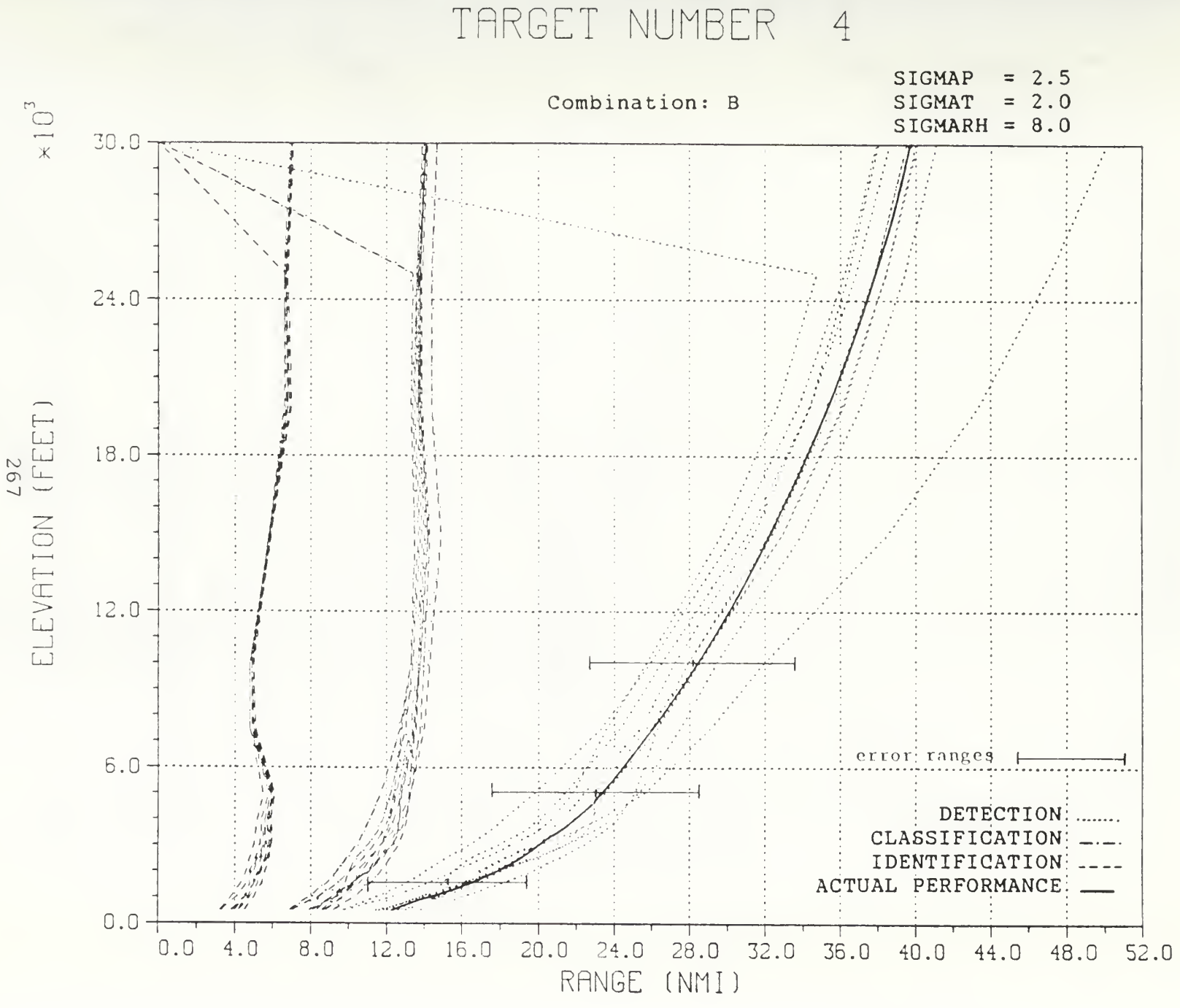

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

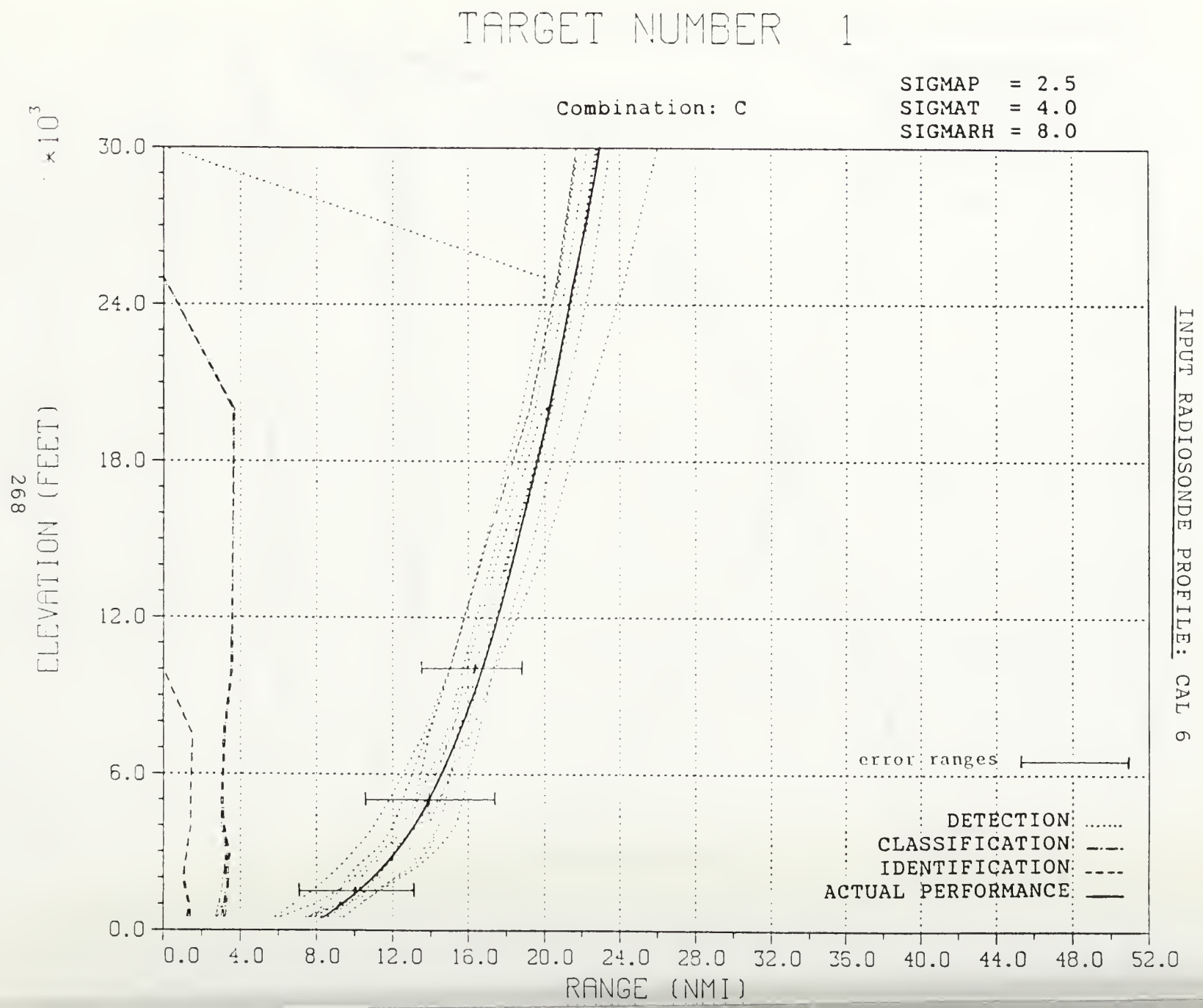

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

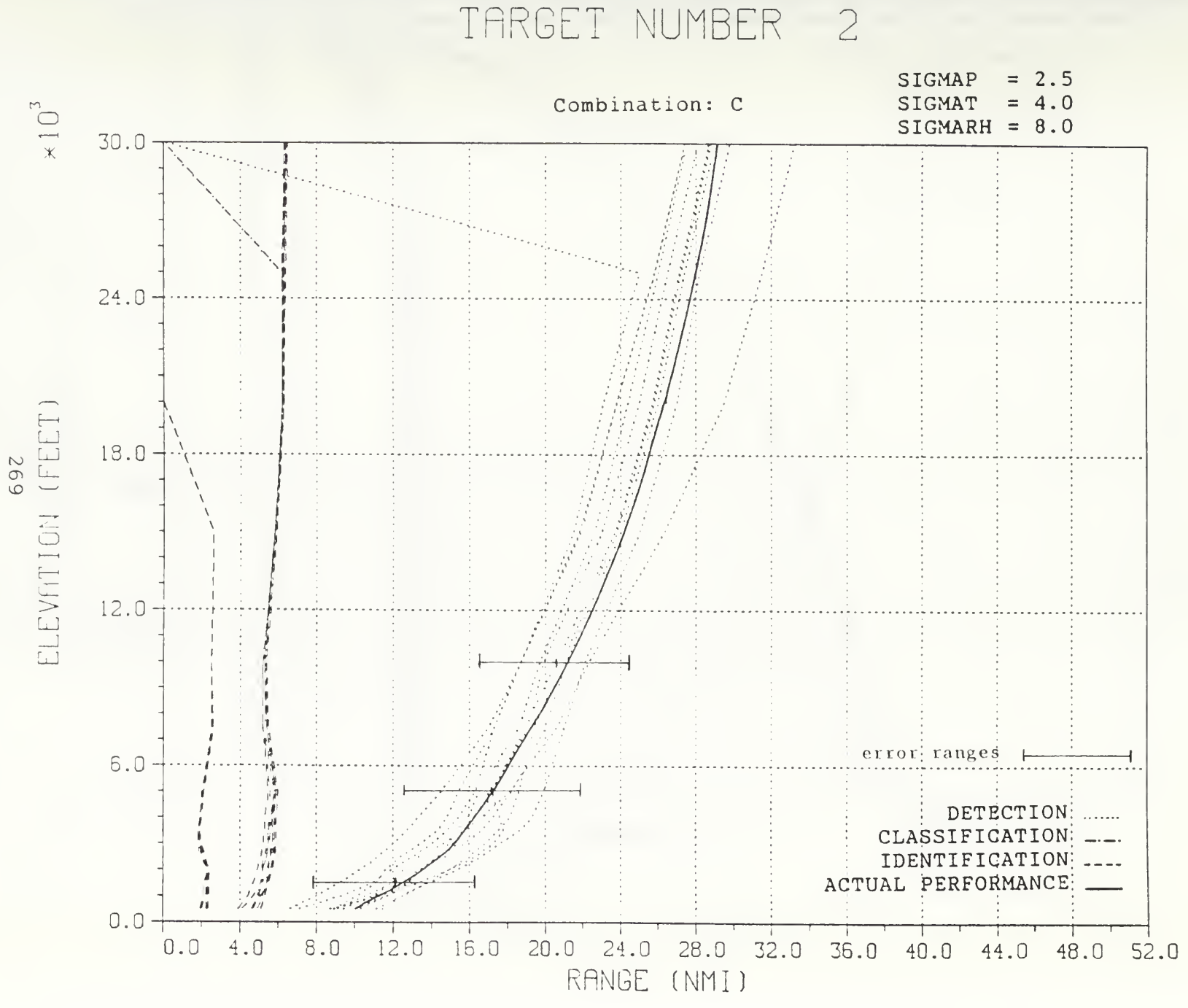

TARGET NUMBER 1
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
Combination: B
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 6

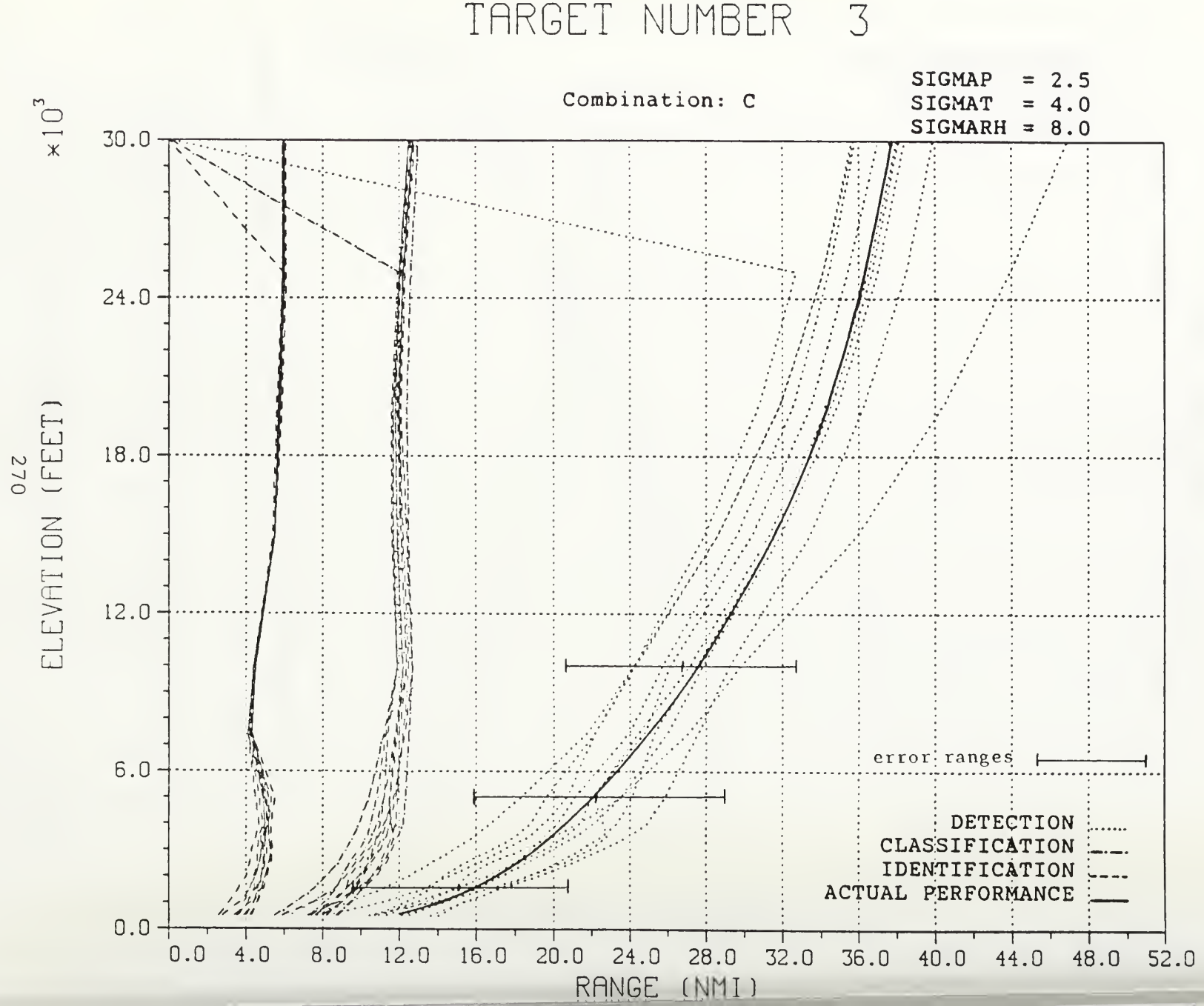

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

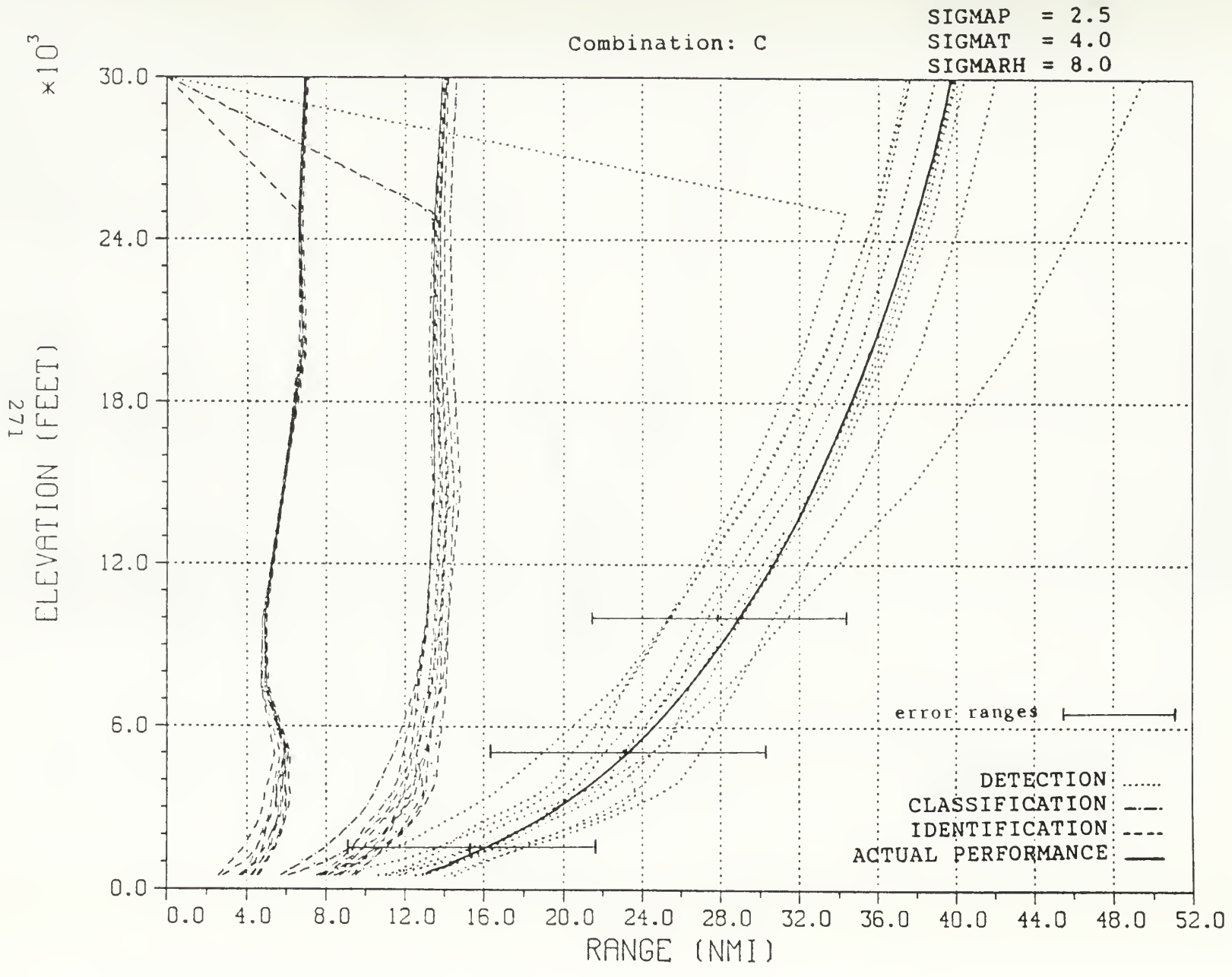

TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

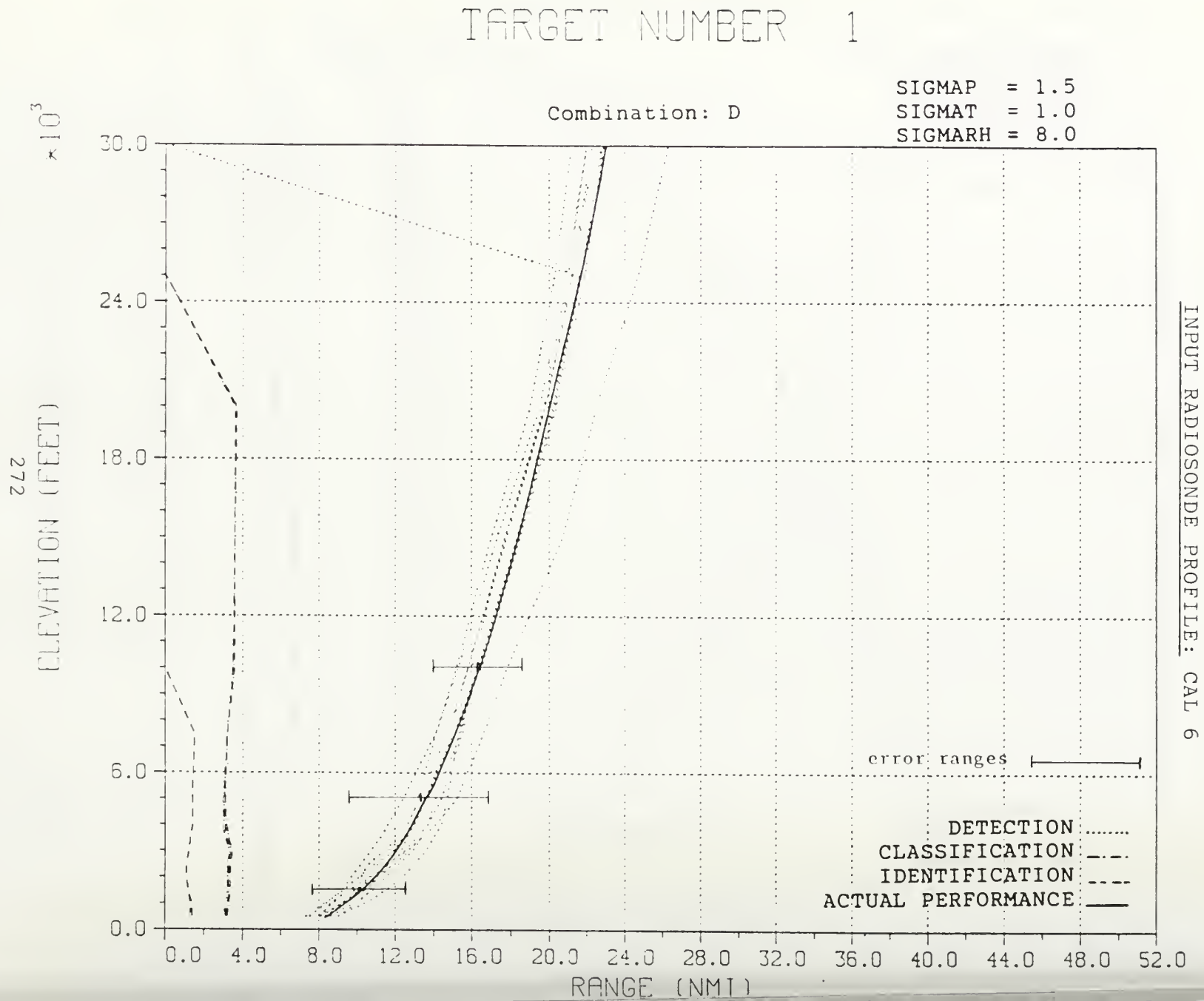

TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 6

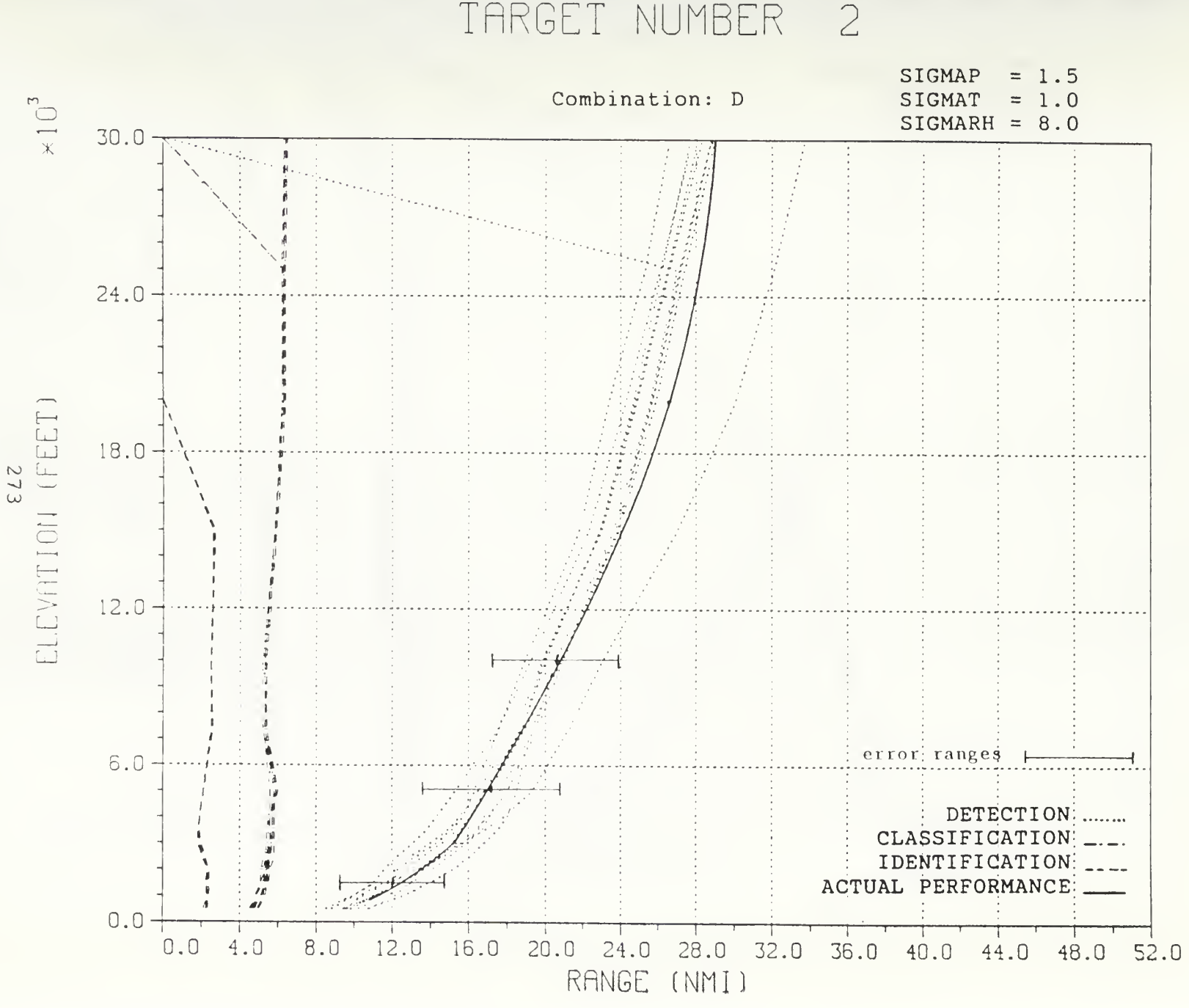

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

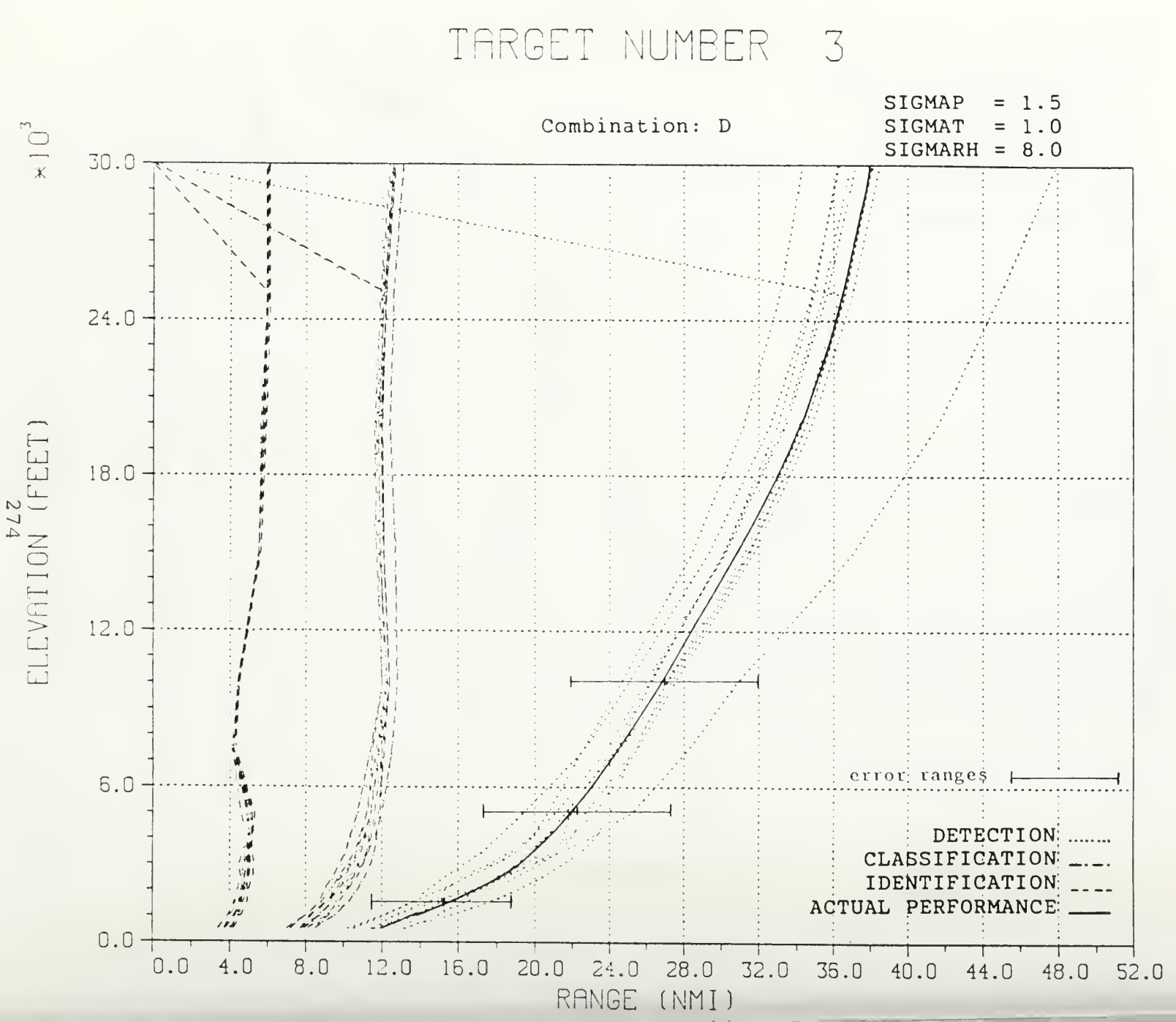

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
270
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

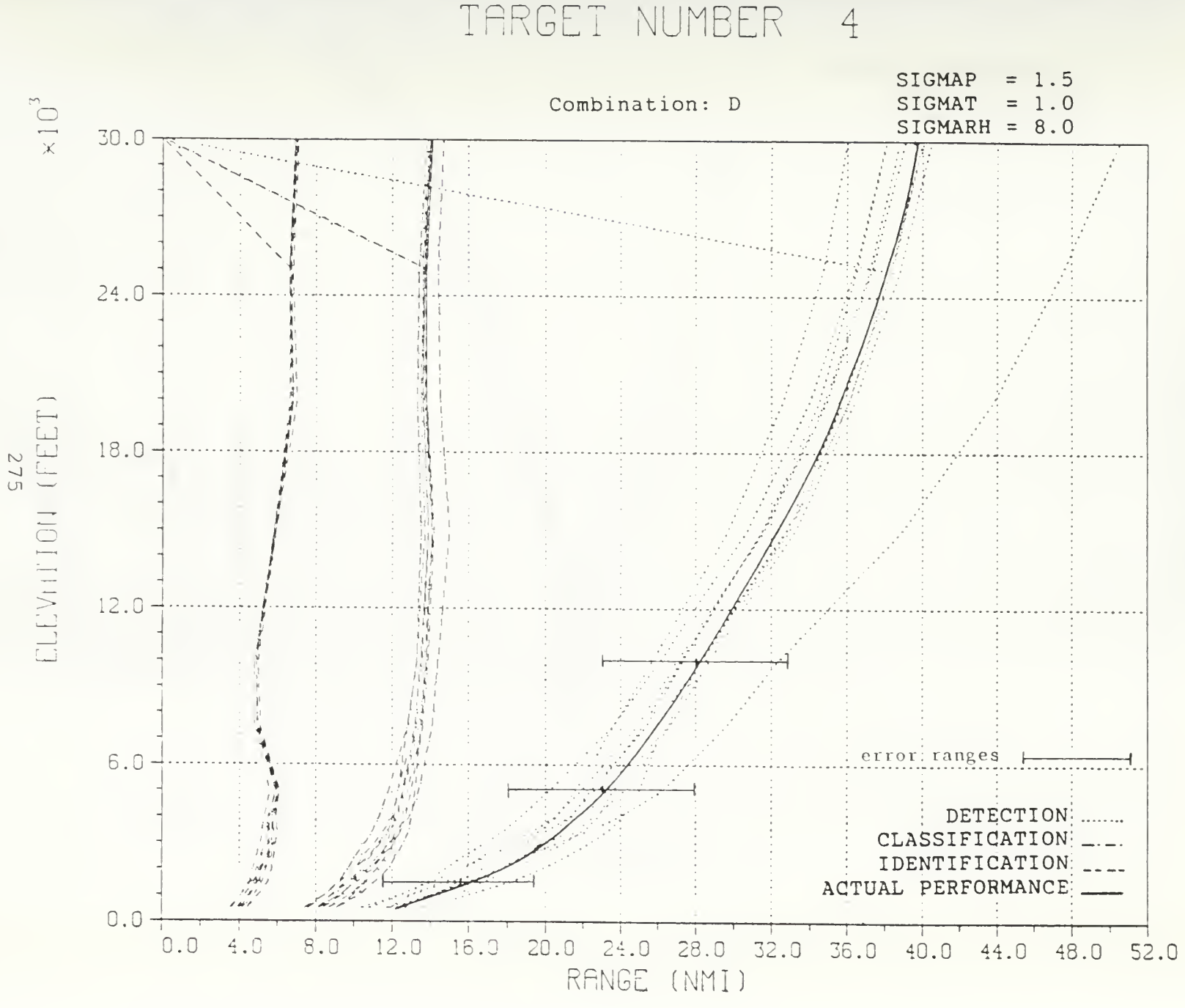
TARGET NUMBER 4

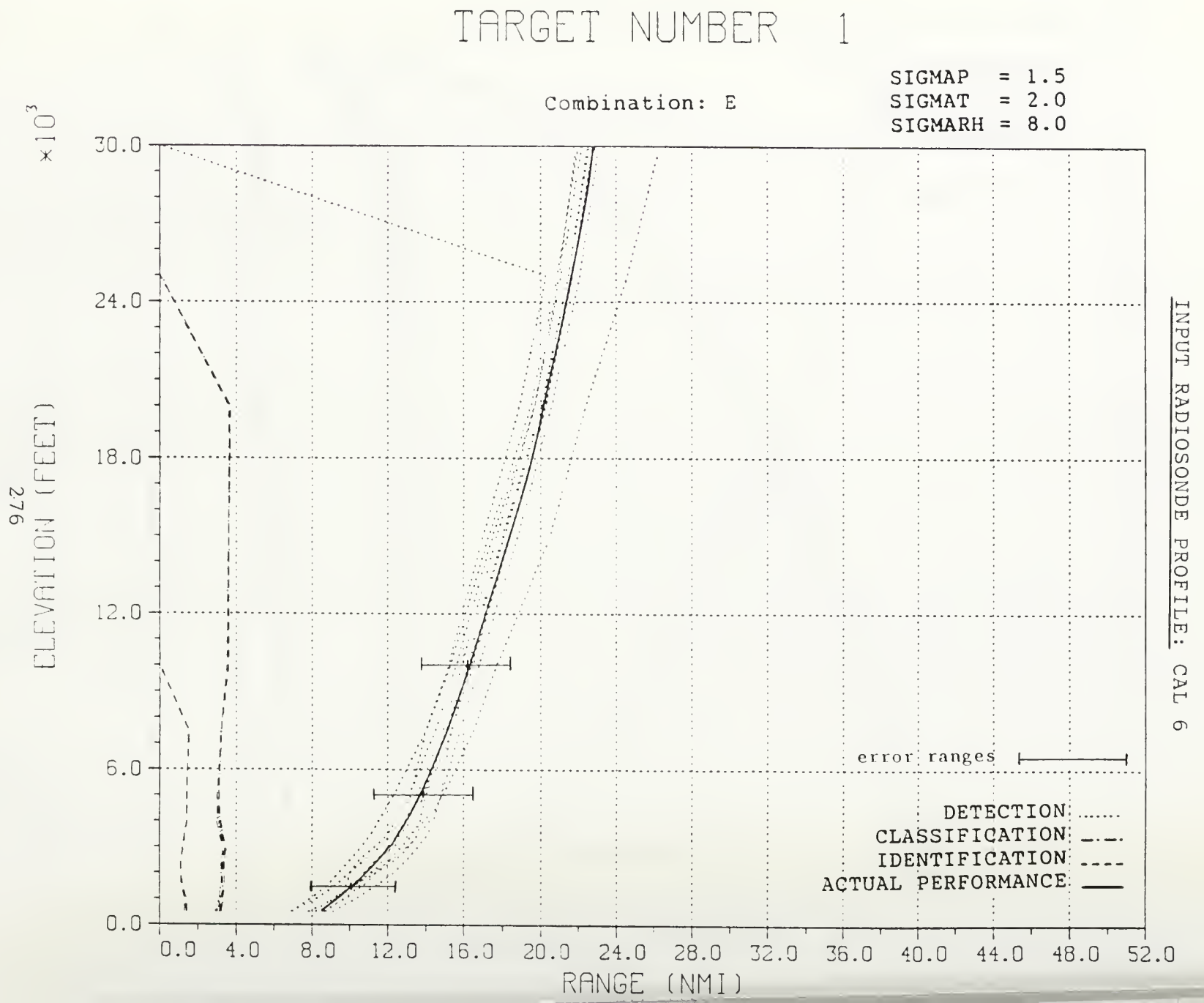


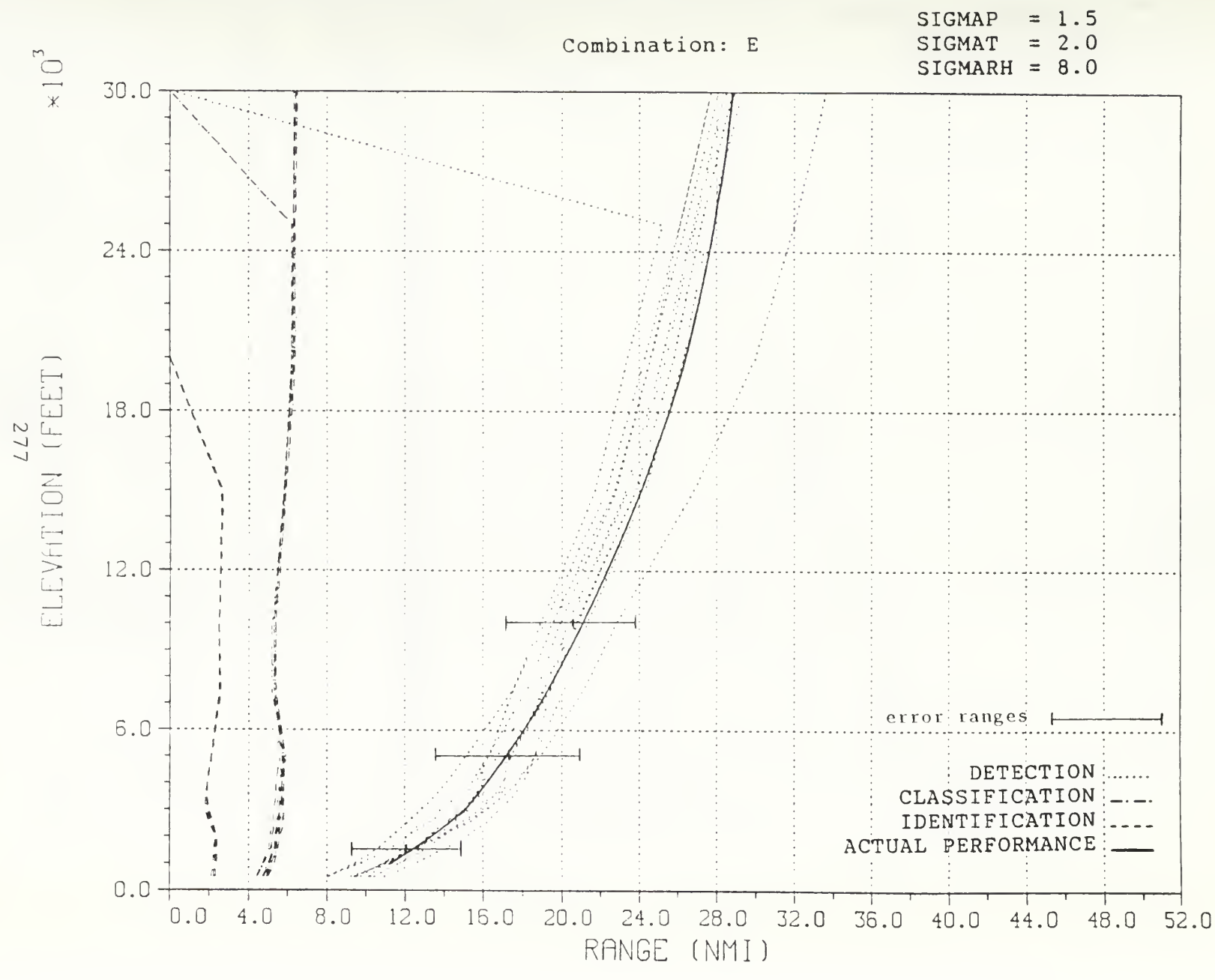

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 6
272

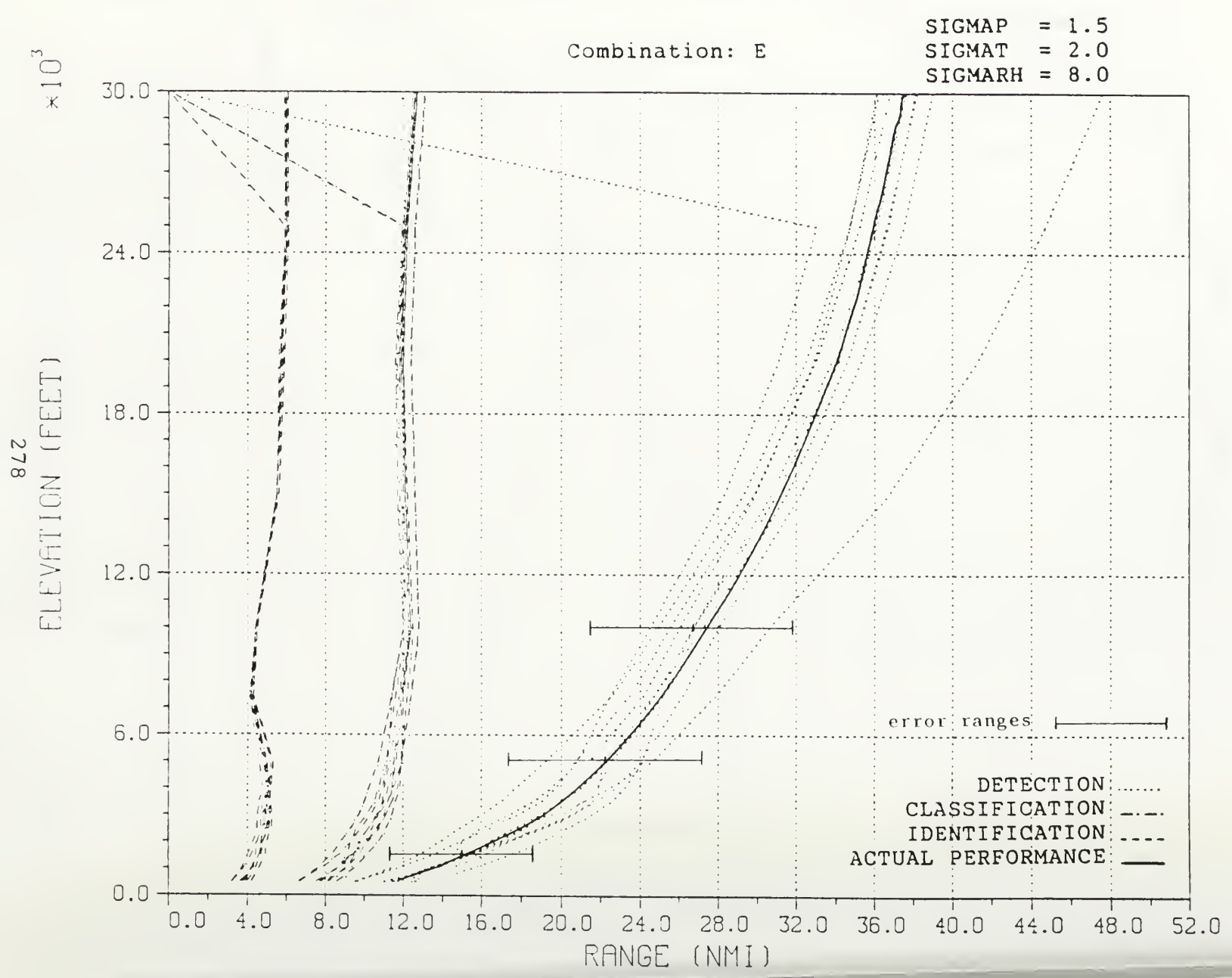

TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

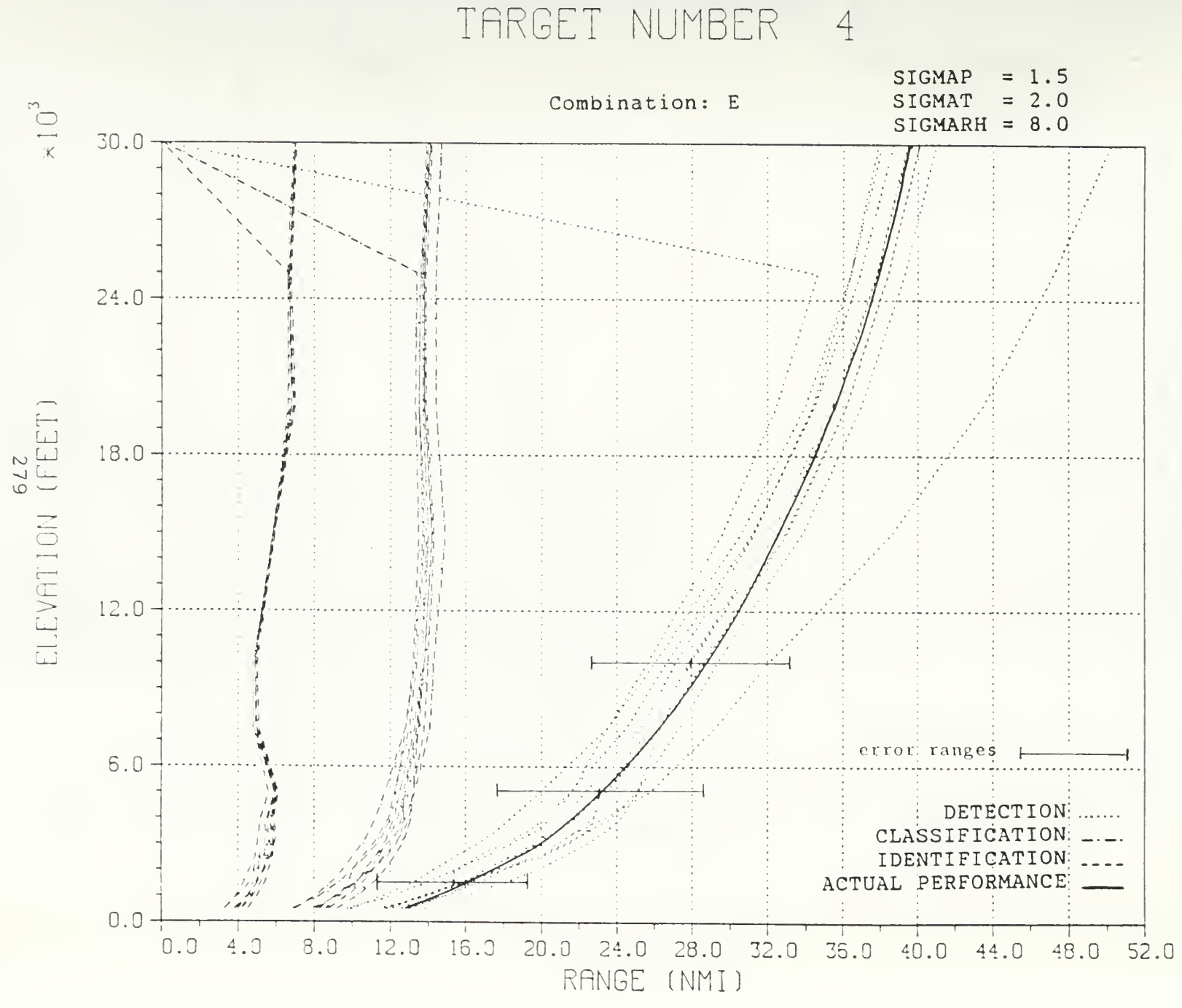

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._.
IDENTIFICATION ---
ACTUAL PERFORMANCE ——

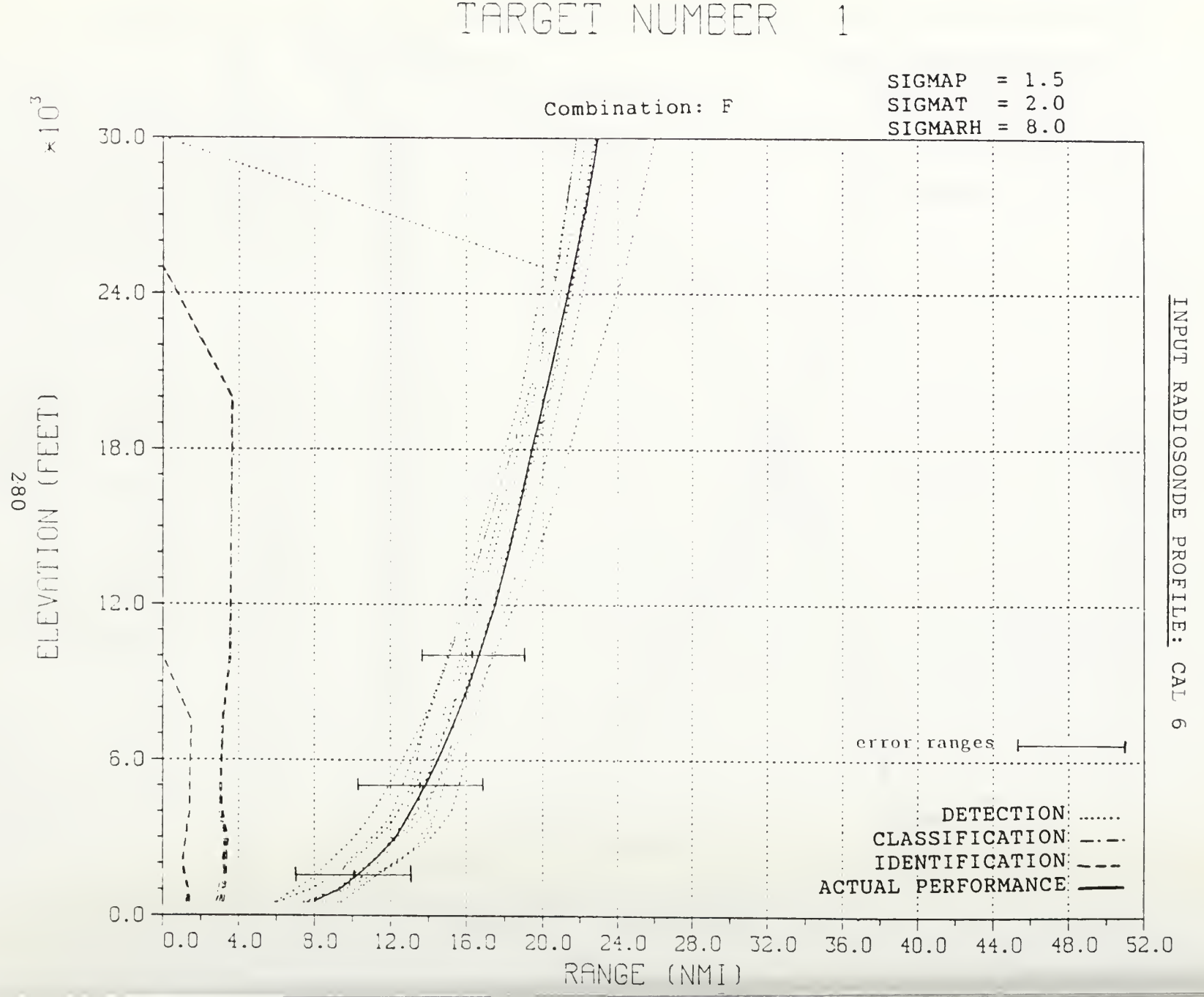

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
275

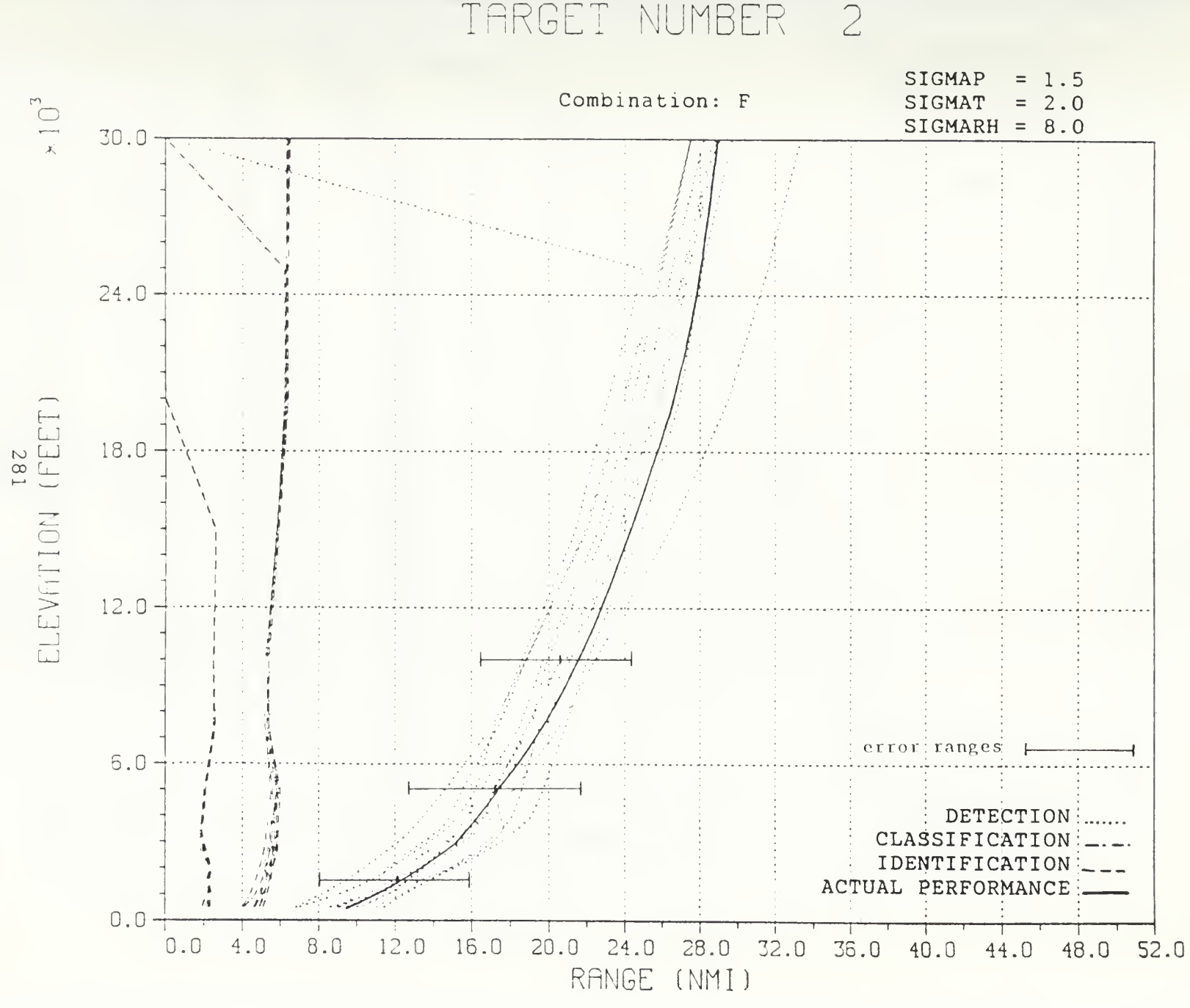

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 6

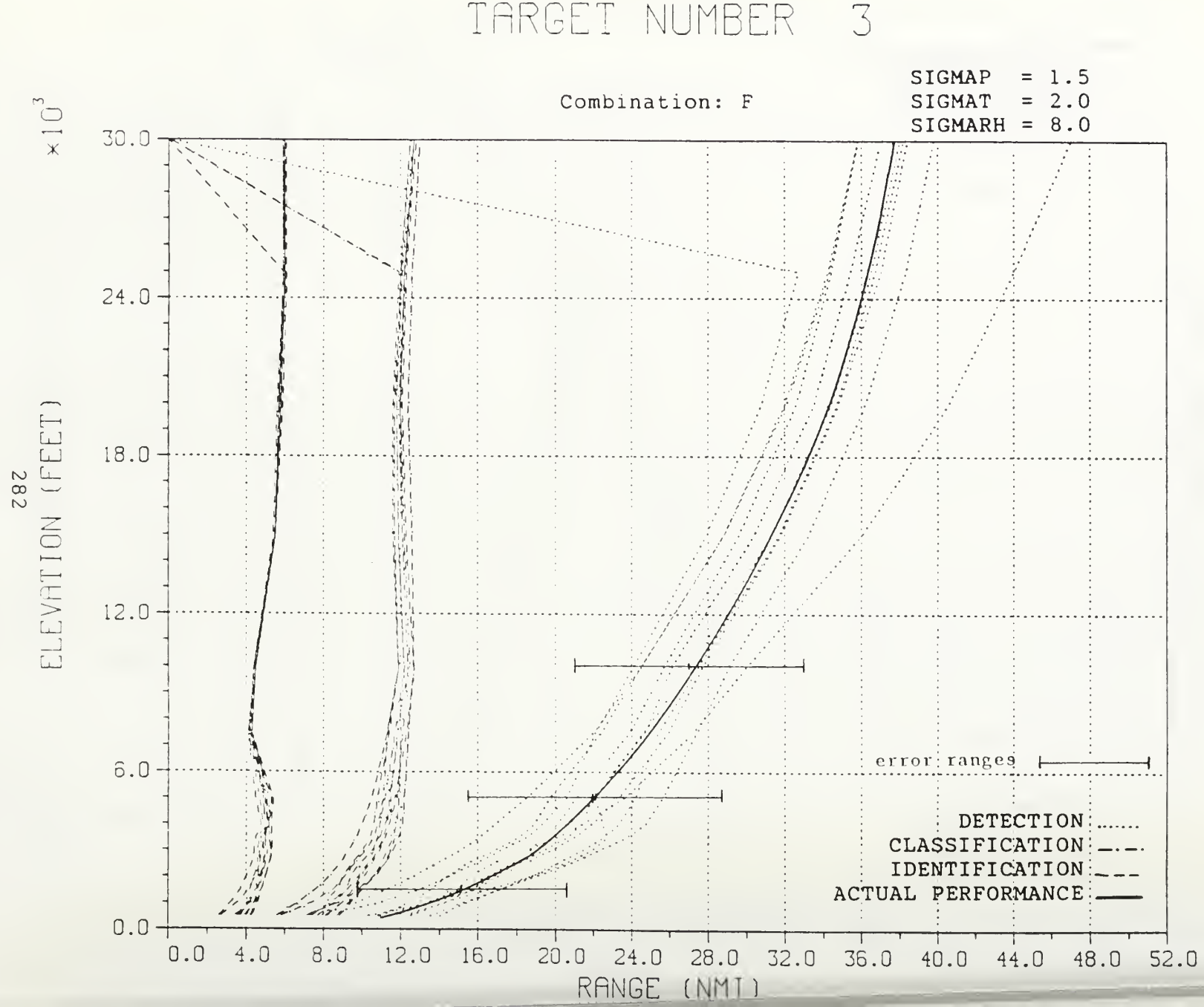

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

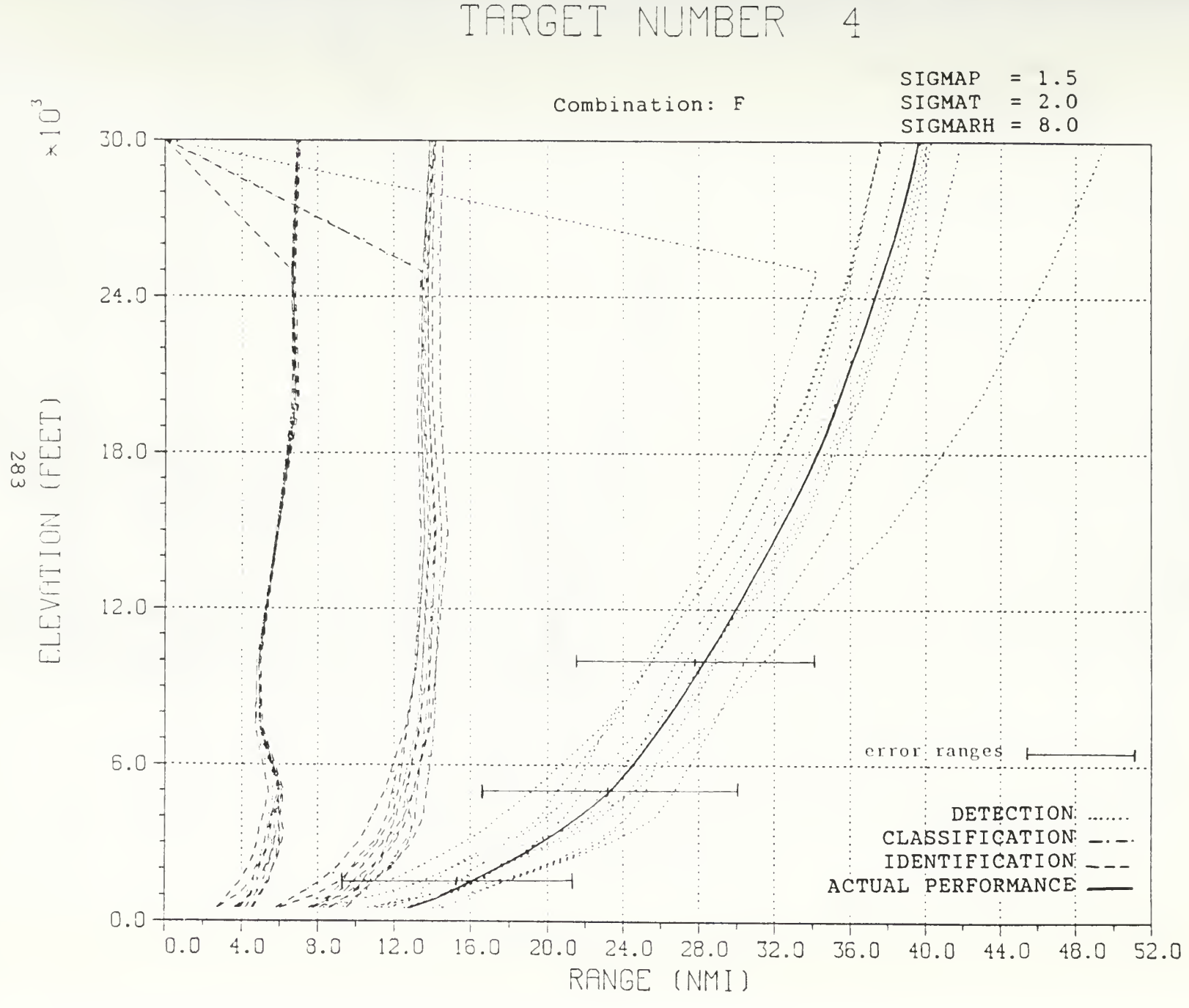

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
278

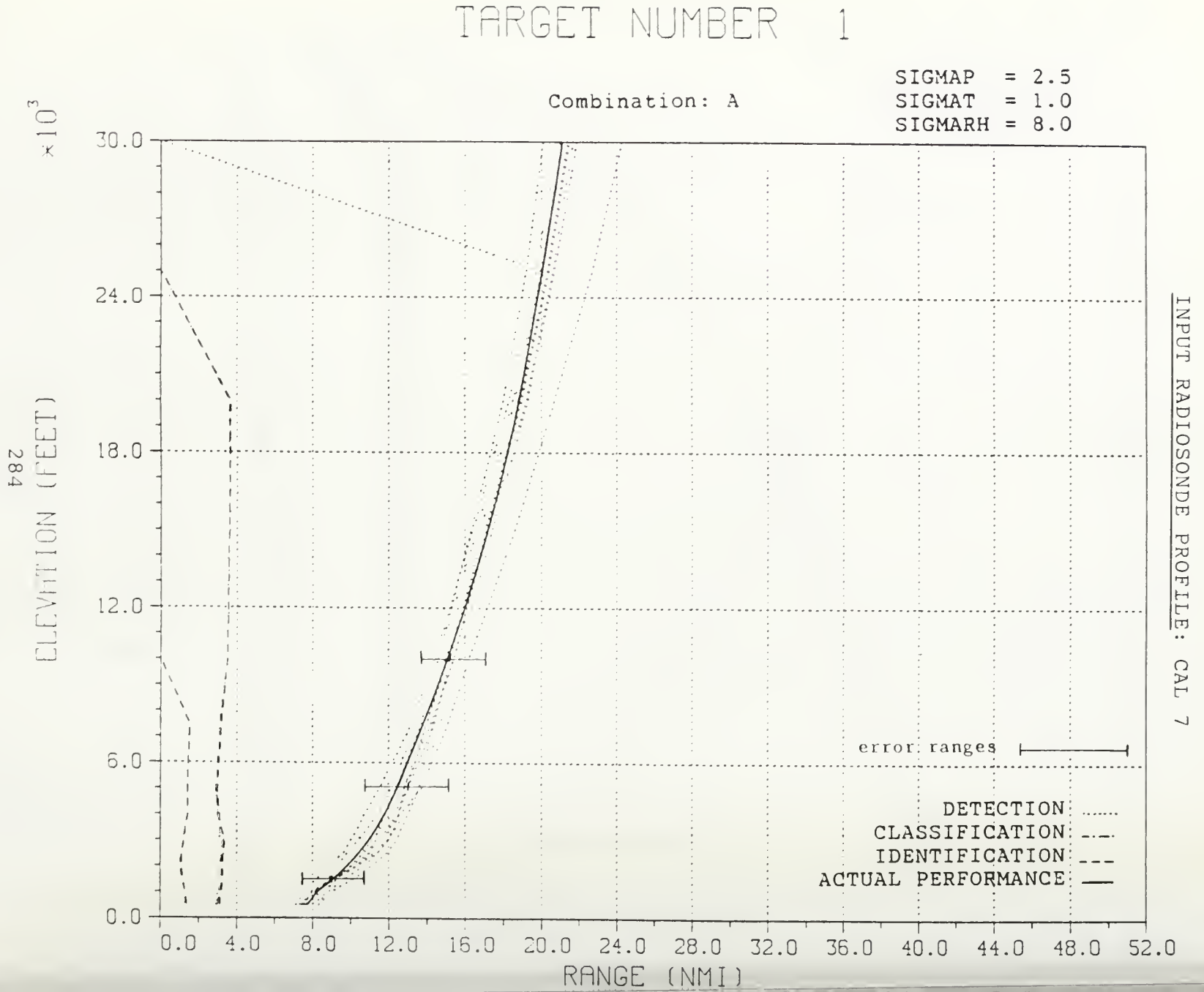

TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

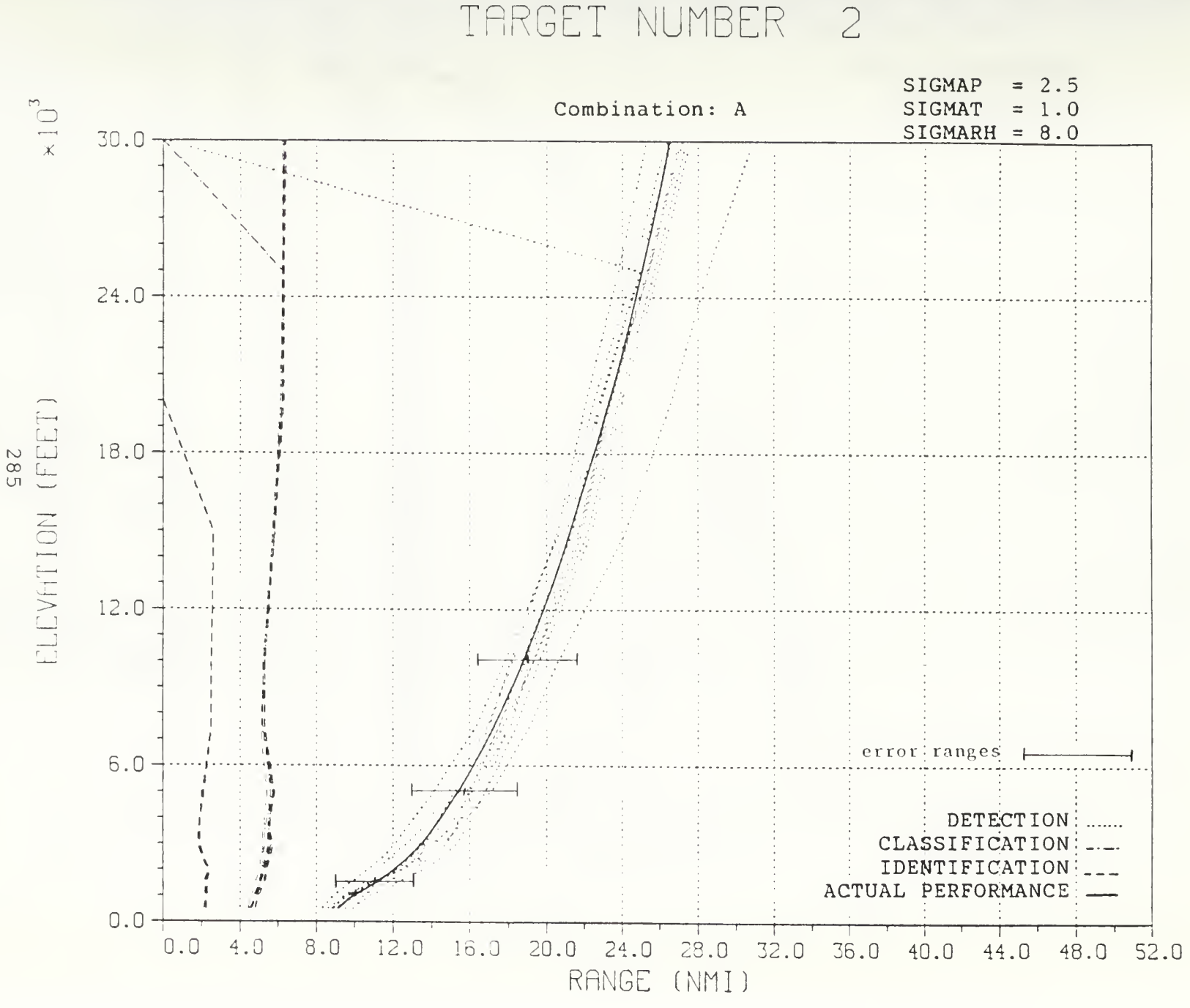

TARGET NUMBER 1
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
Combination: F
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
ELEVATION (FEET)
280
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION -.-.-
IDENTIFICATION - - -
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 6

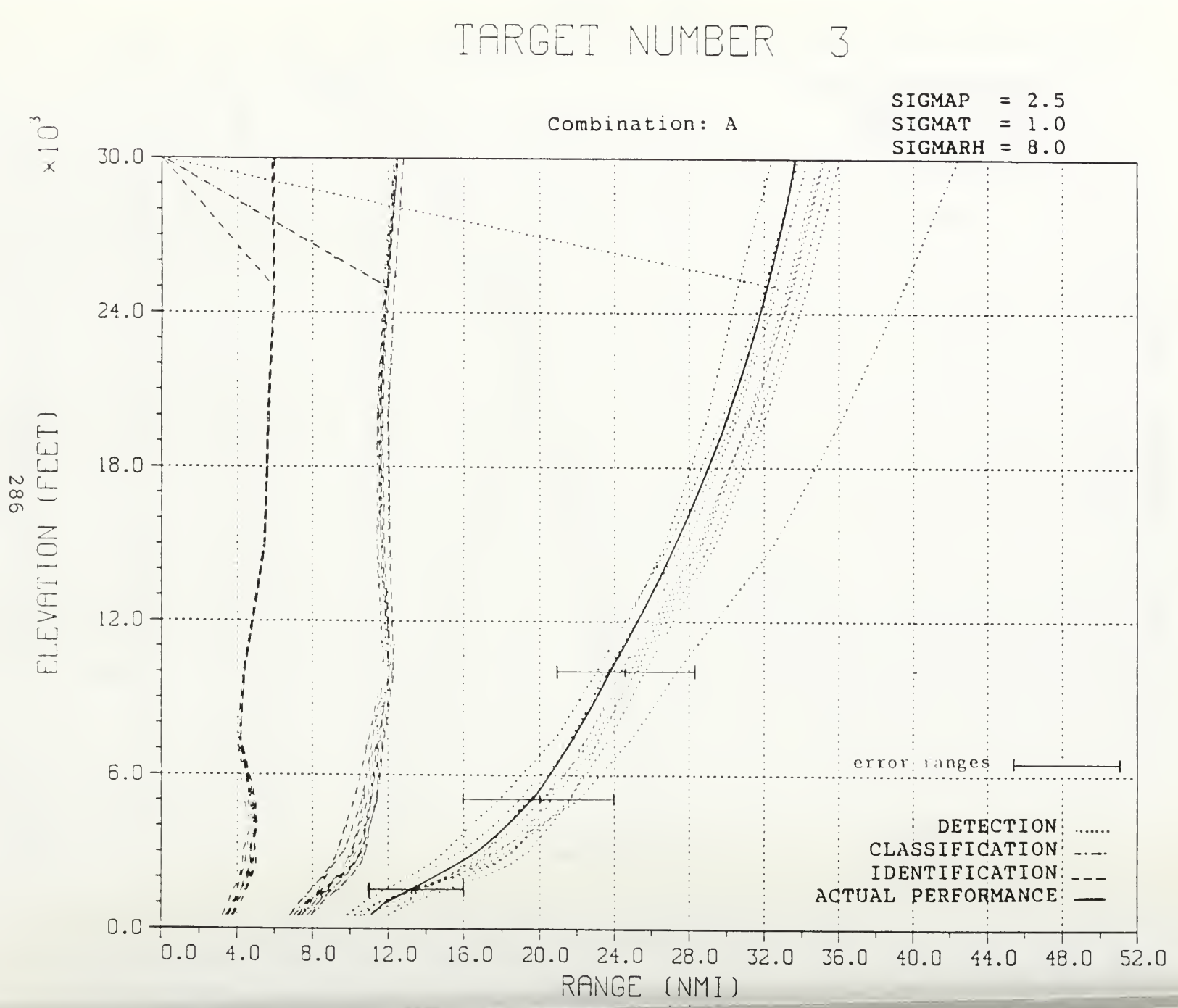

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) x10^3
281
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

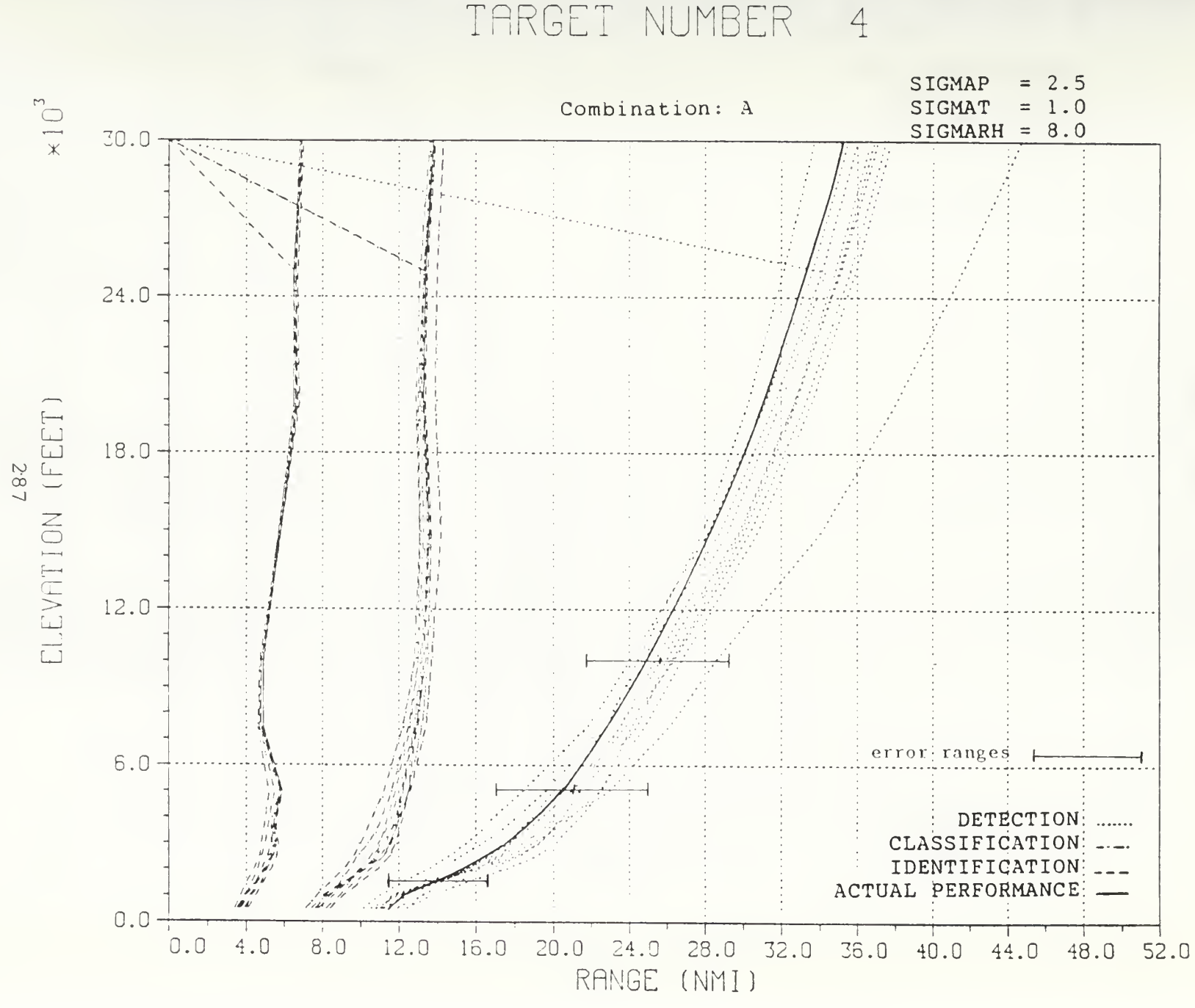

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

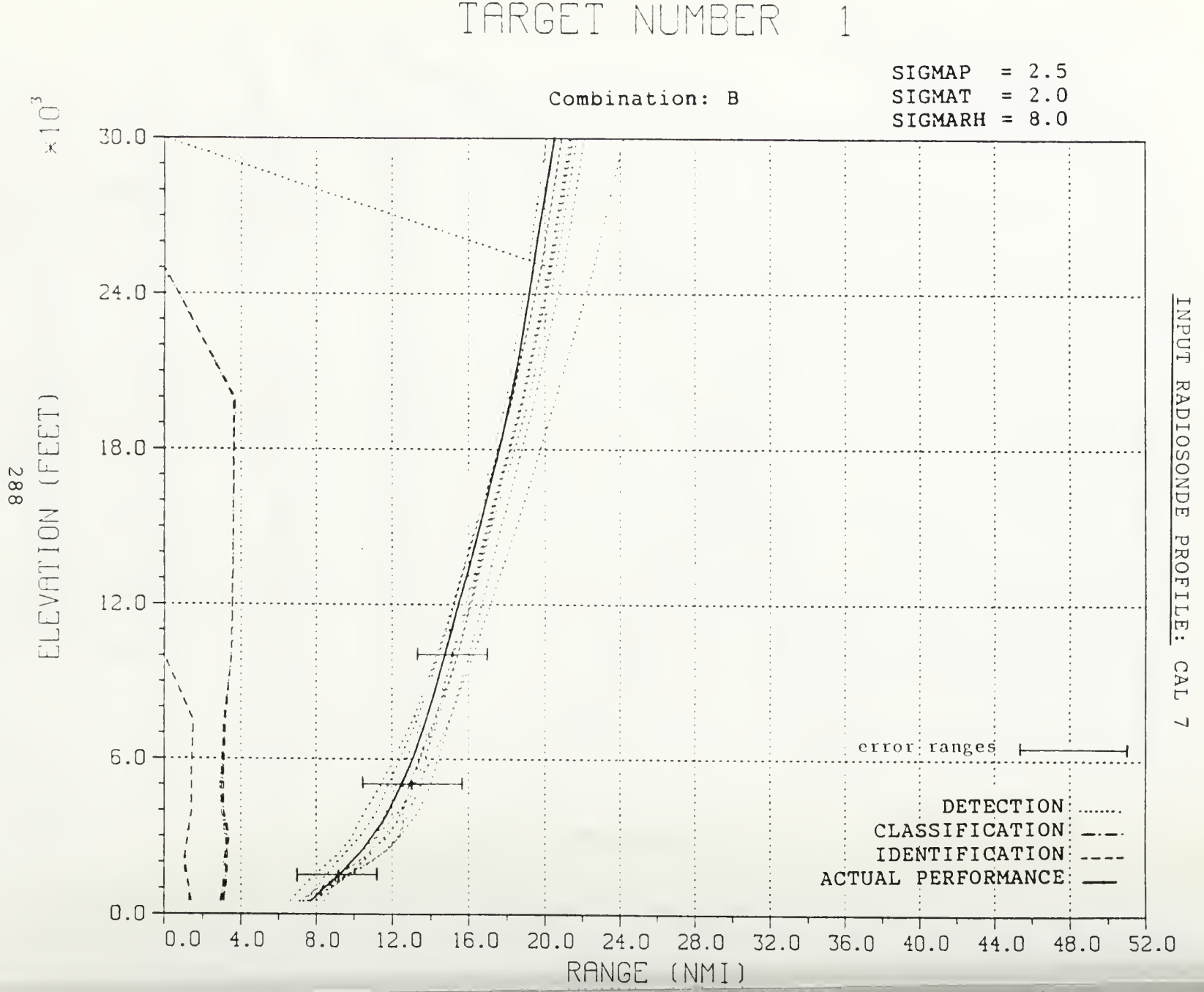

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

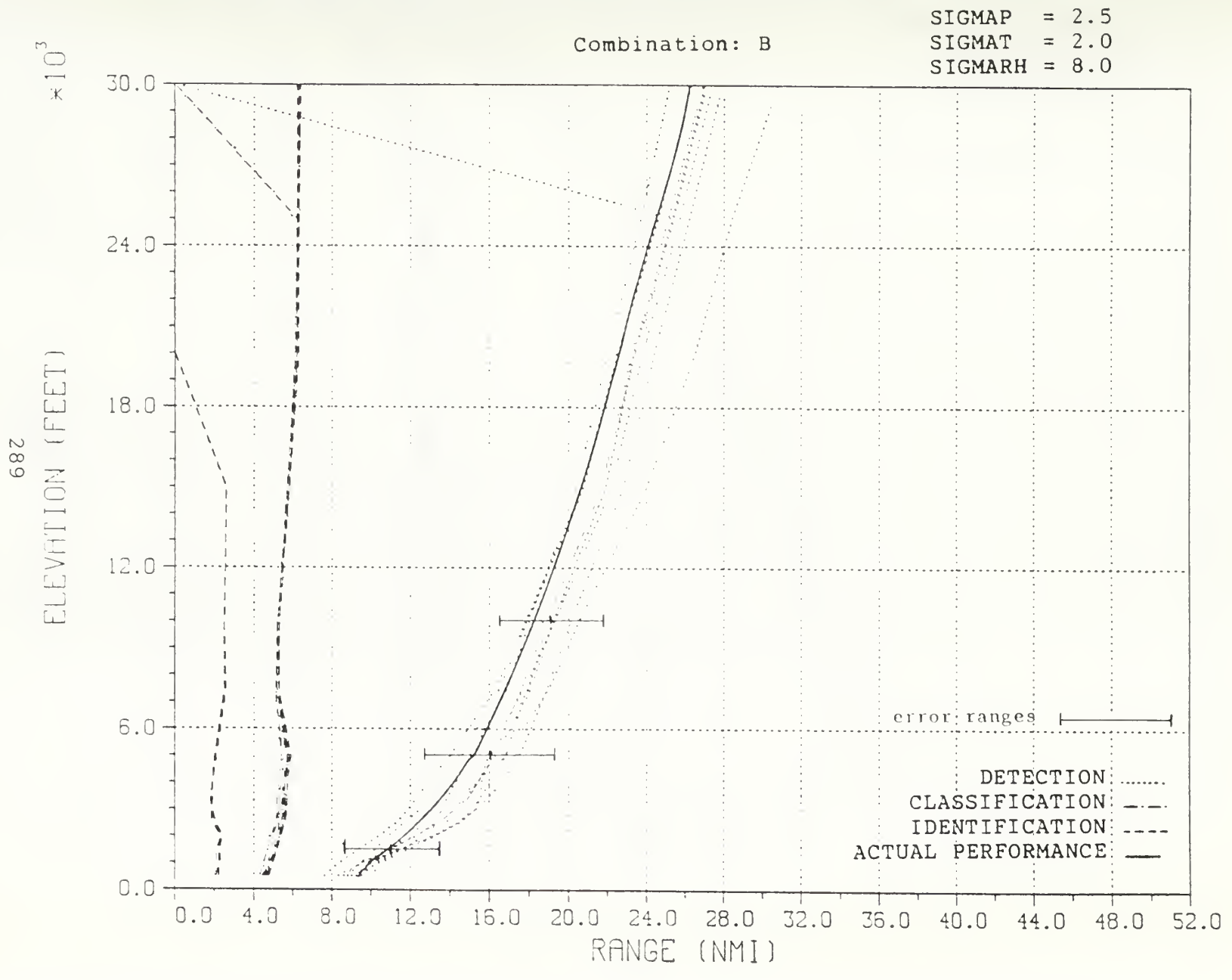

TARGET NUMBER 1
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
Combination: A
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 7

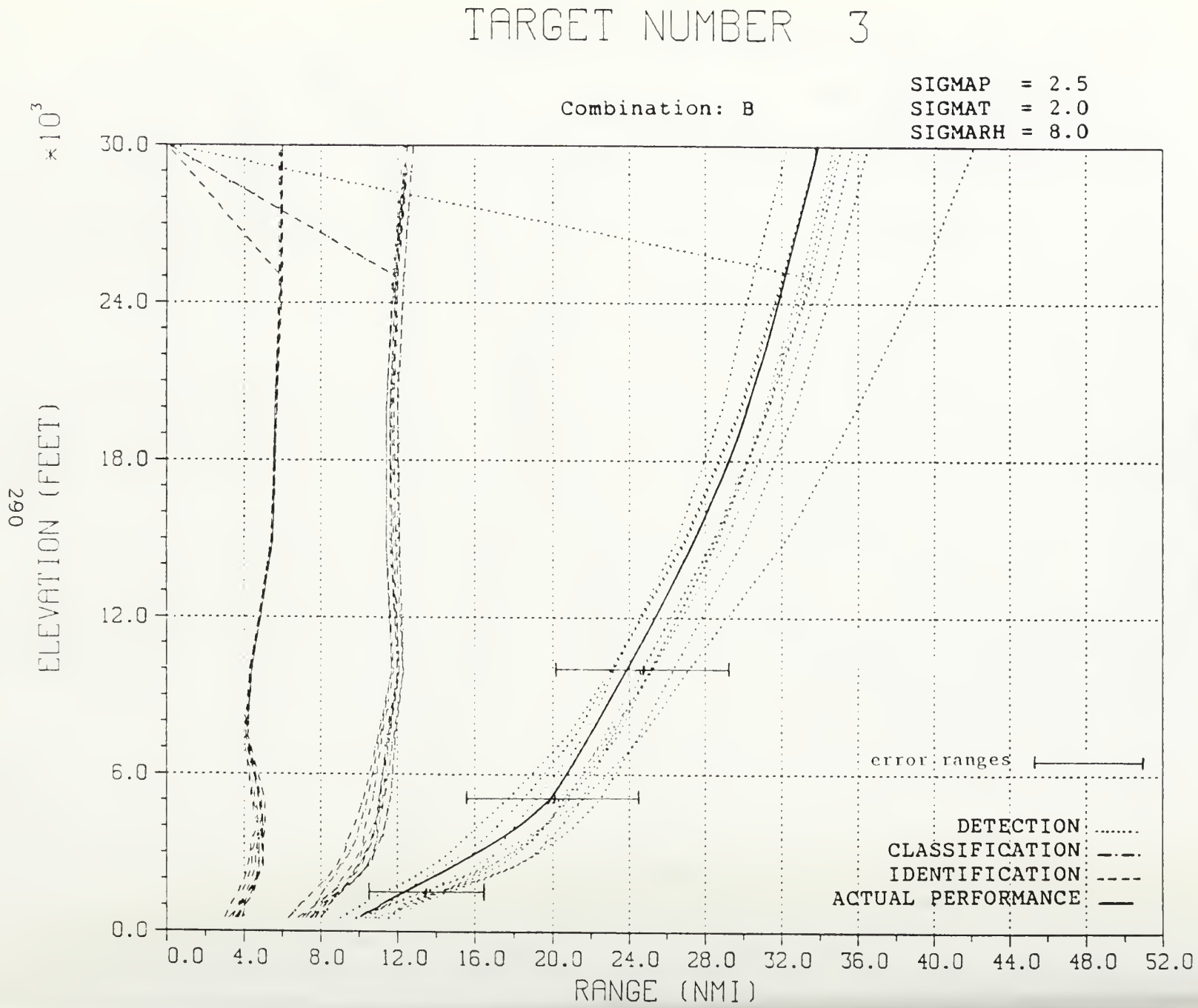

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

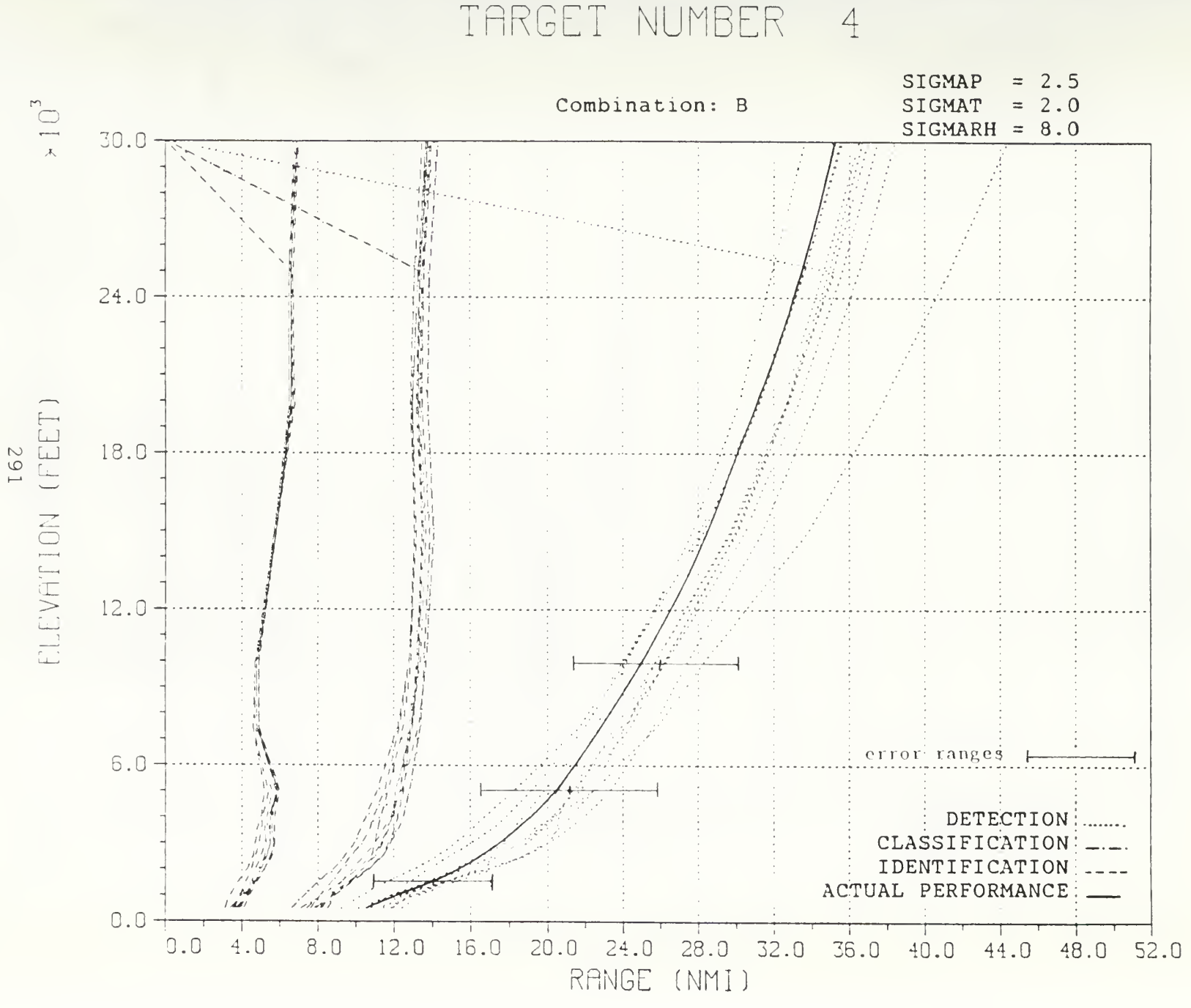

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
287

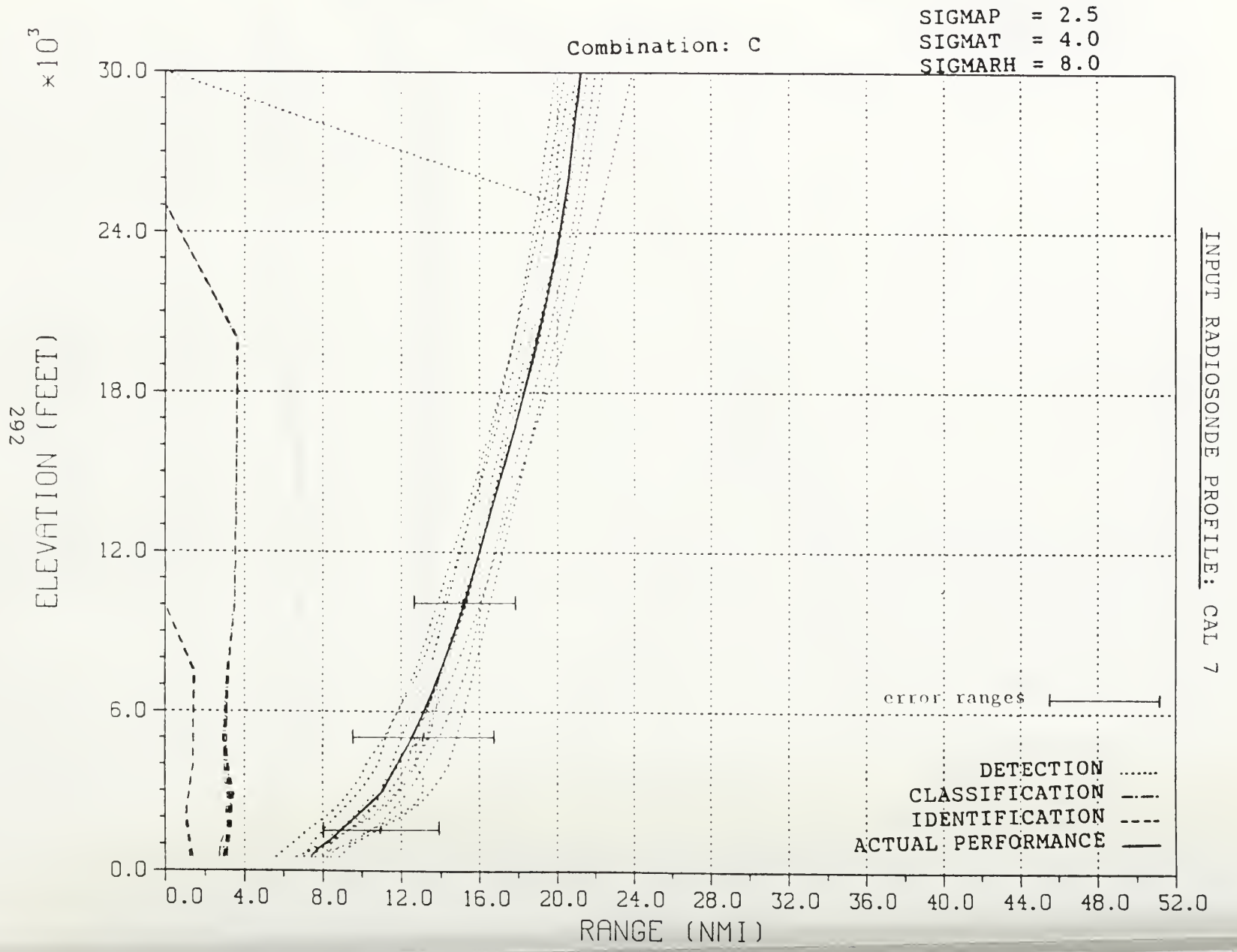

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 7


TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

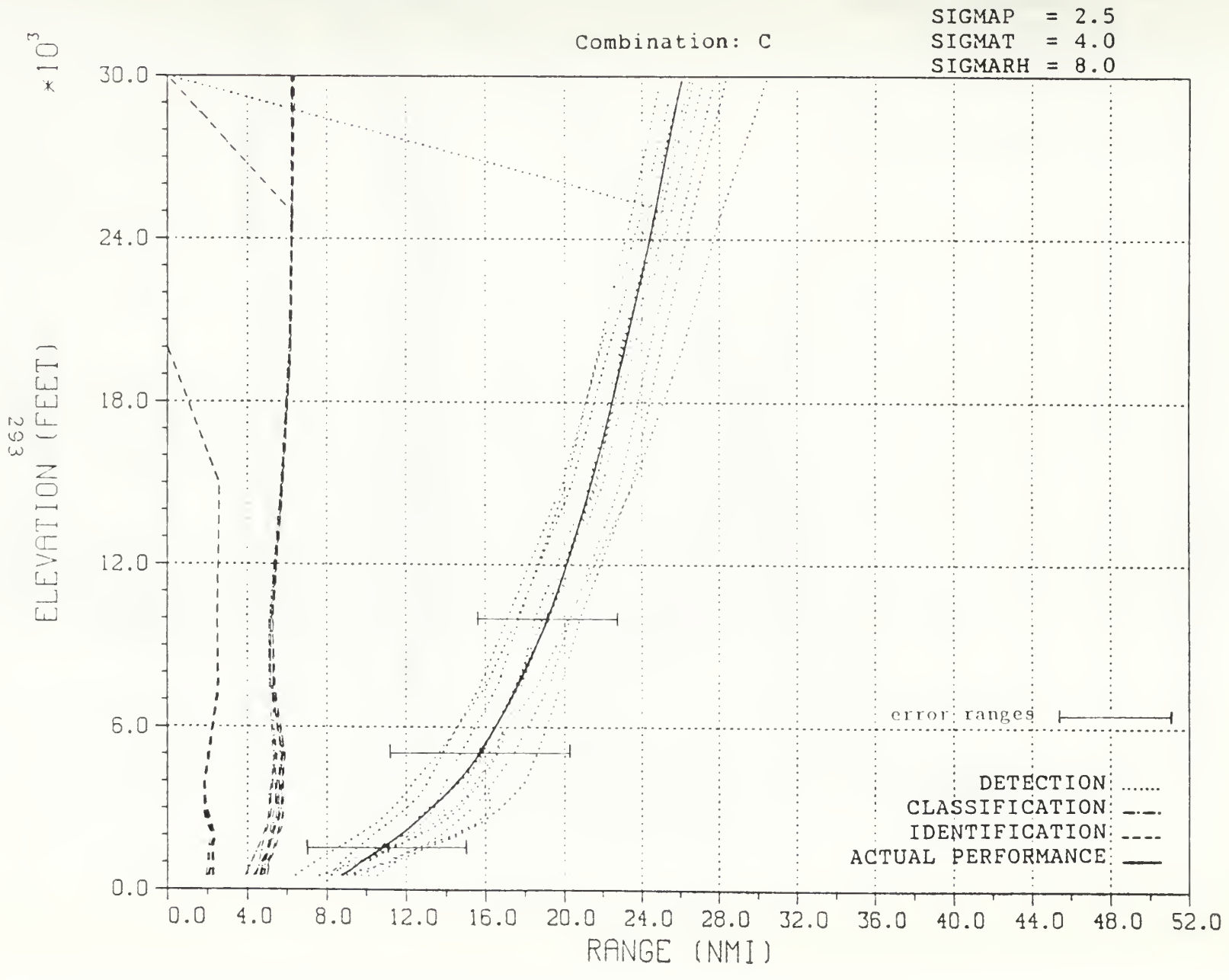

TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

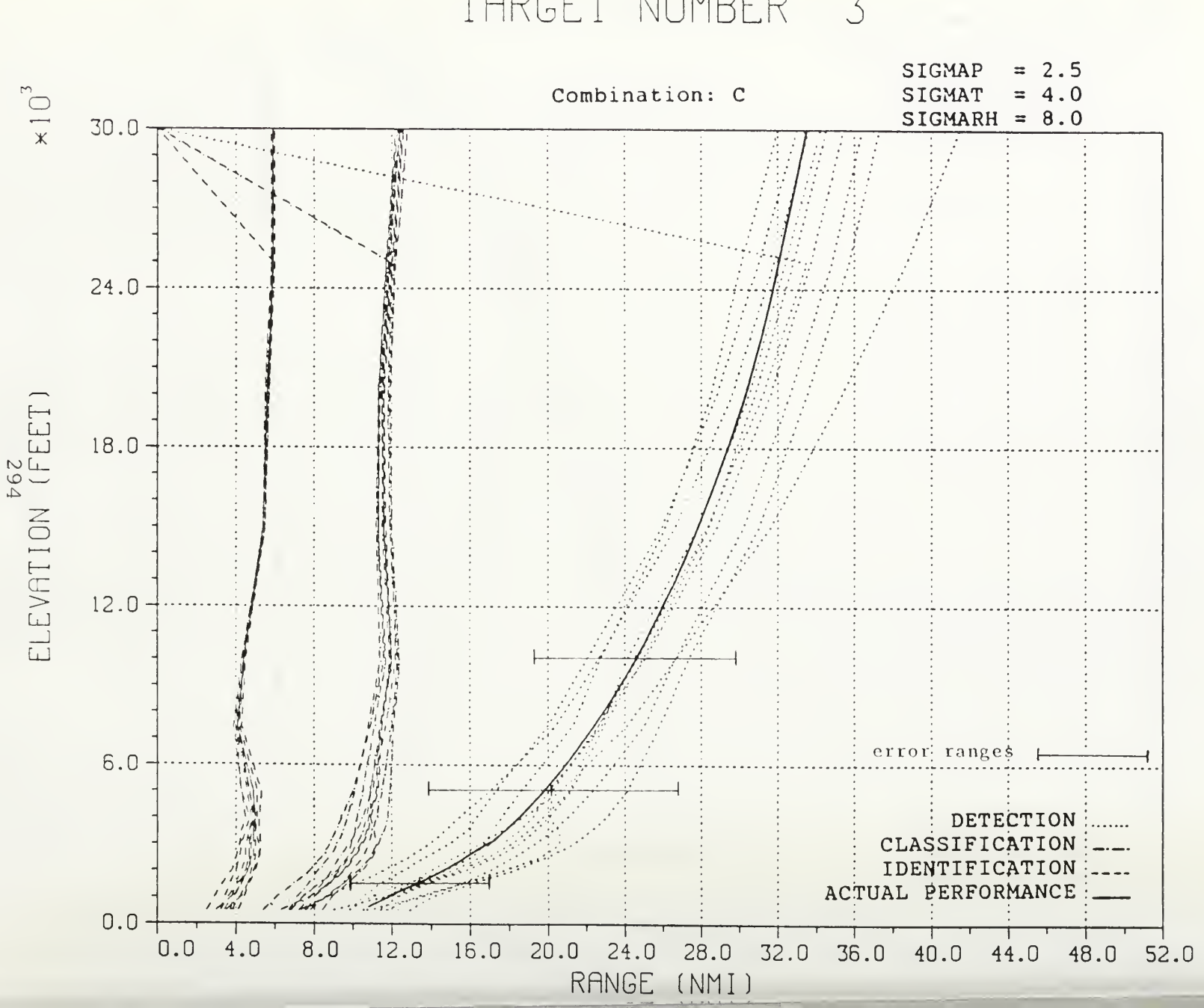
TARGET NUMBER 1



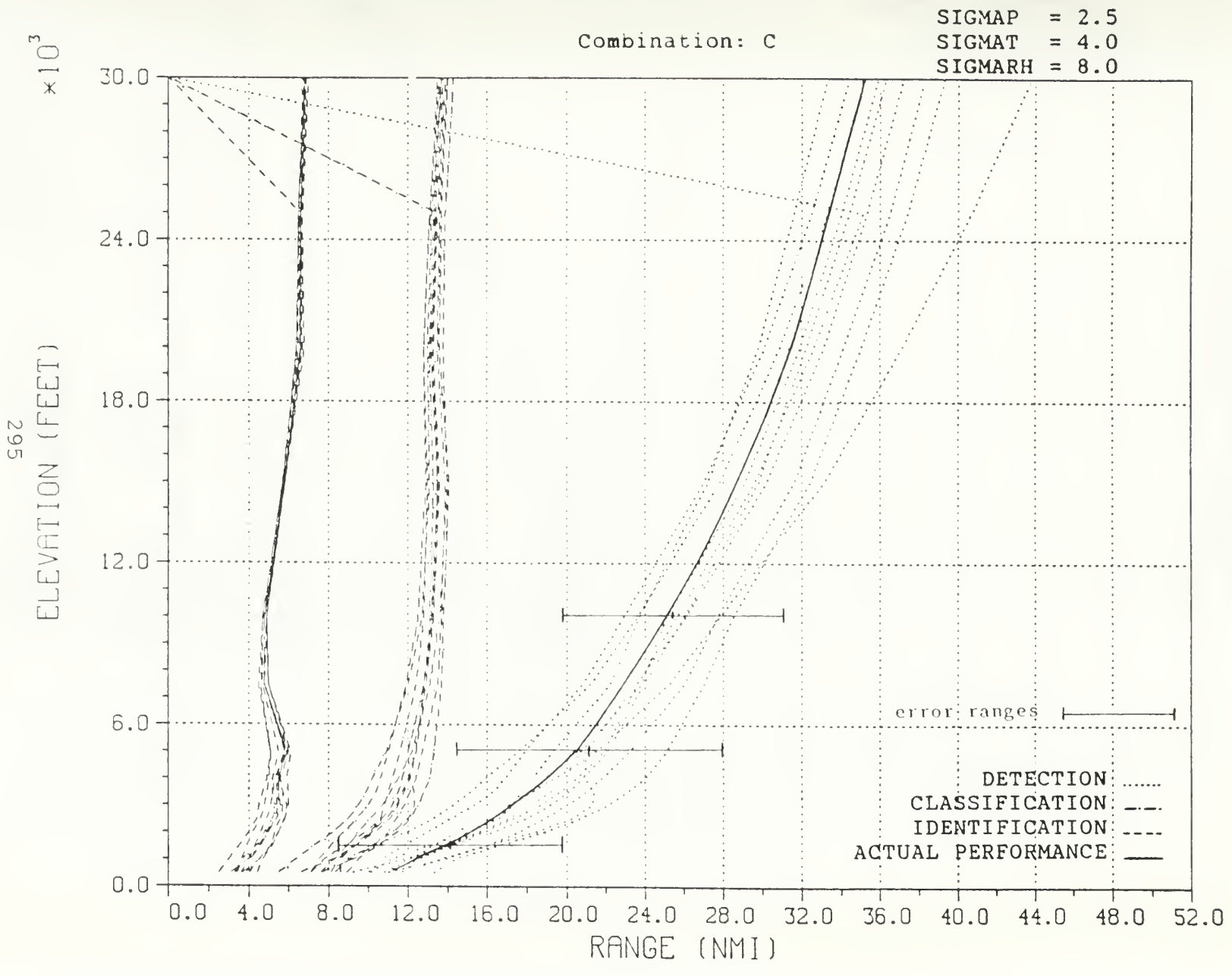
INPUT RADIOSONDE PROFILE: CAL 7

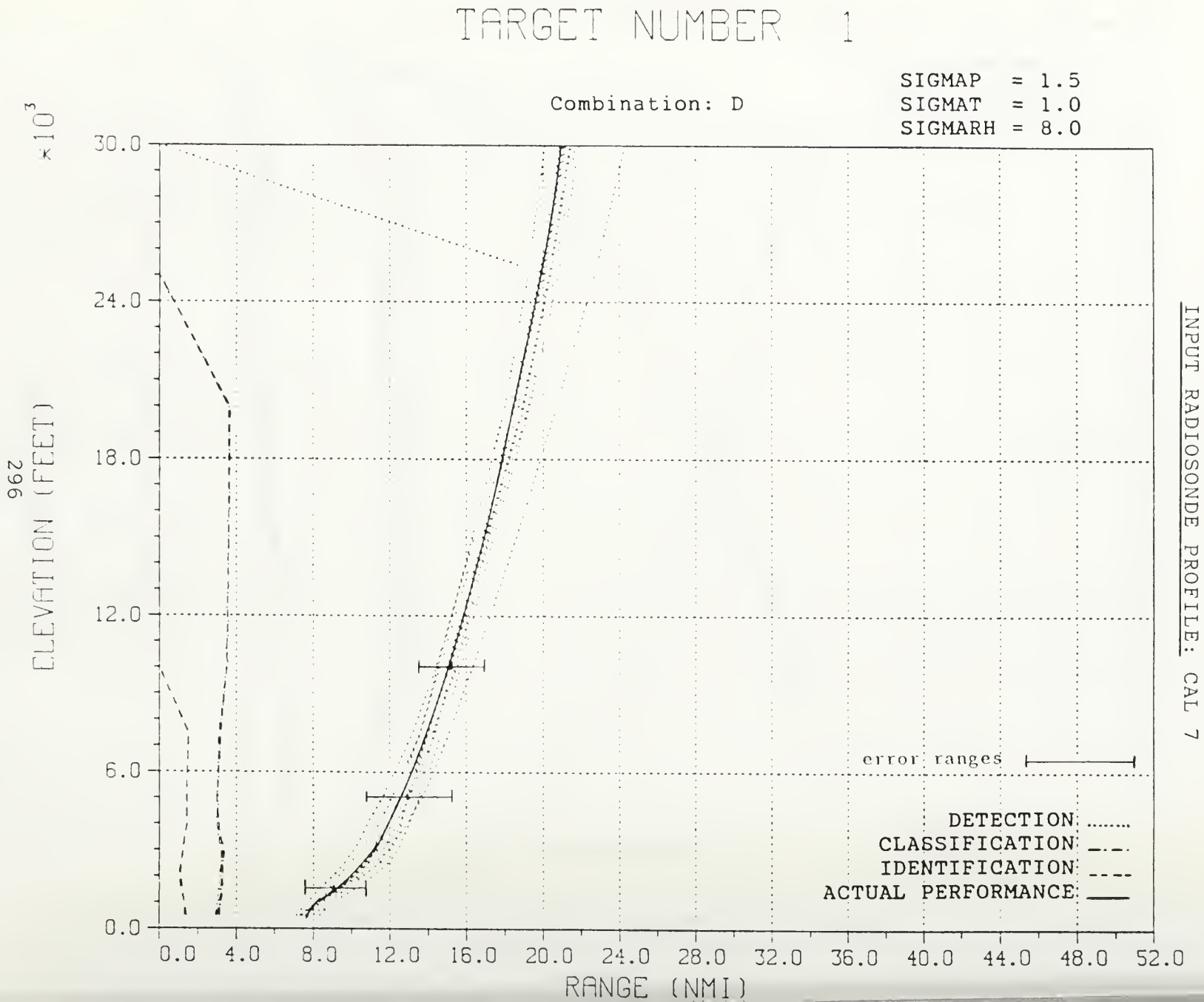
TARGET NUMBER 2

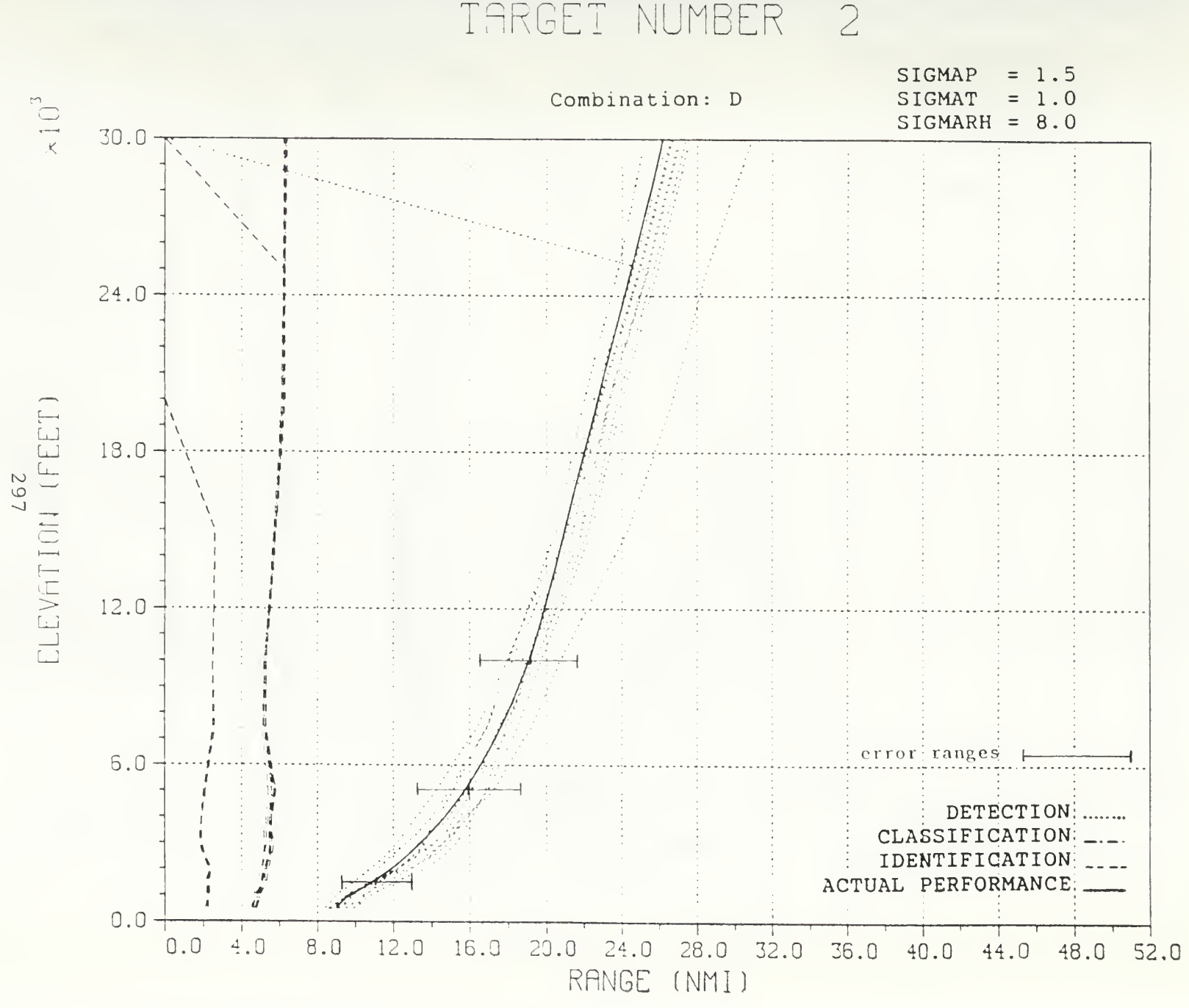


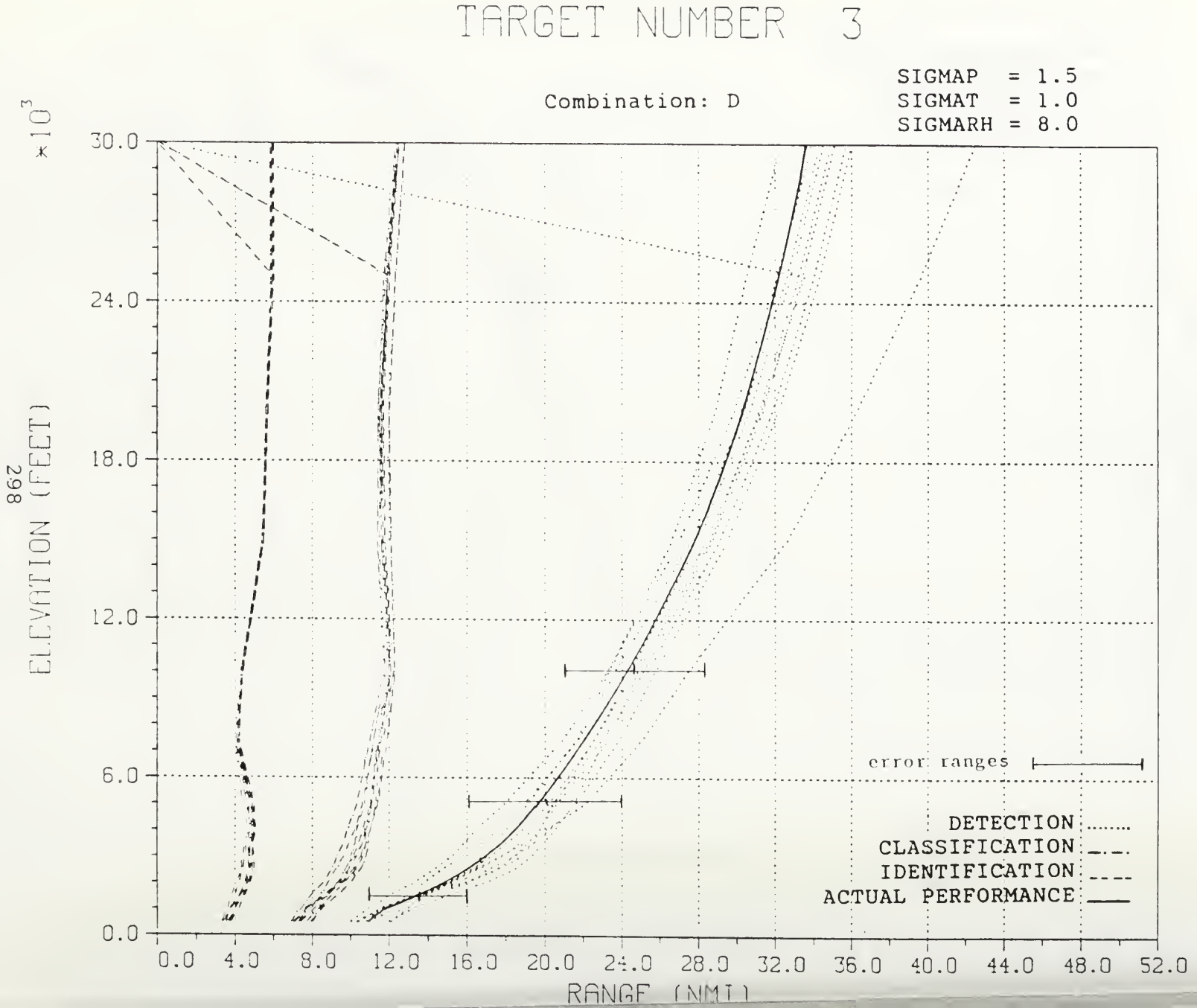

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
294
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

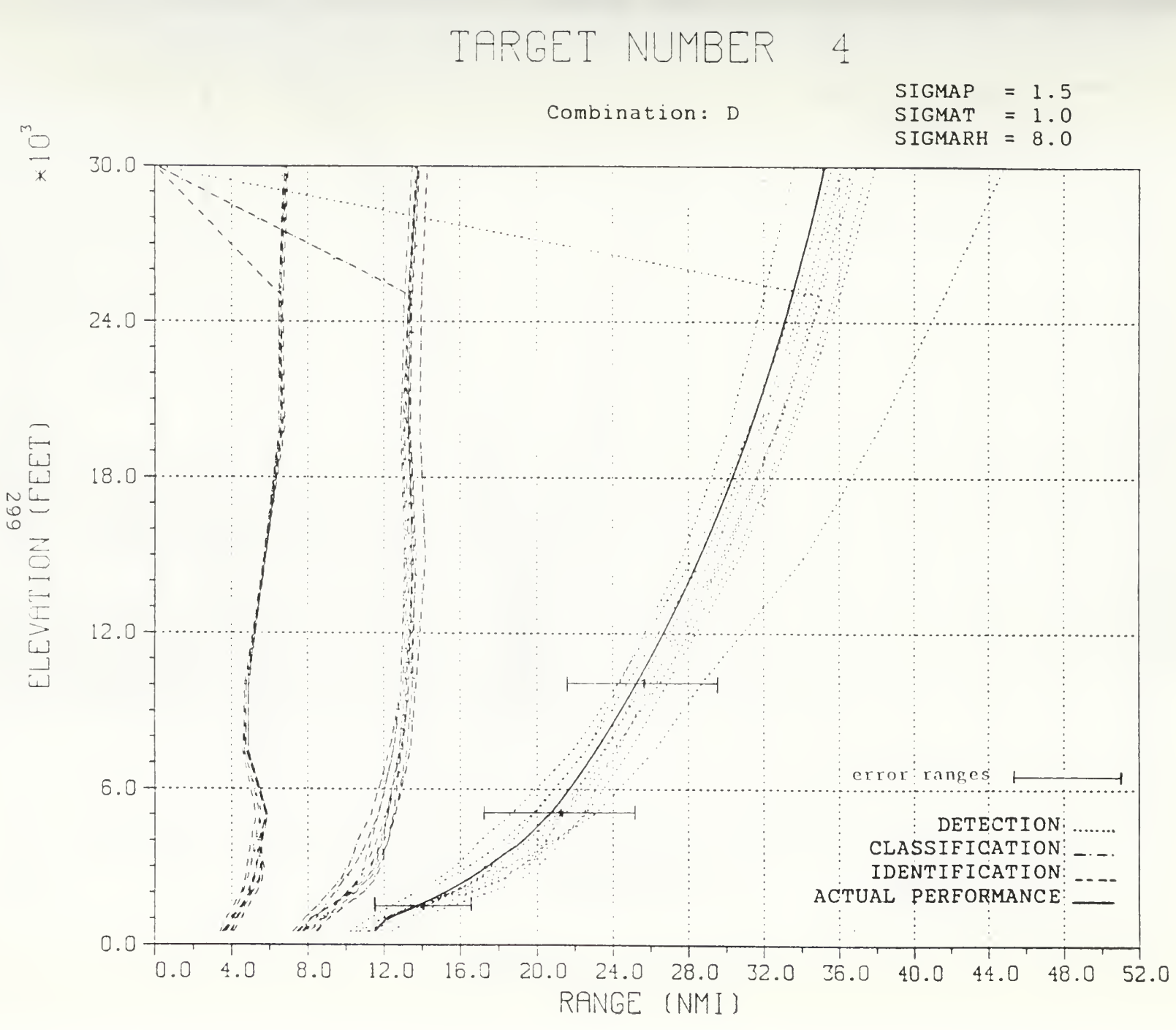
TARGET NUMBER 4

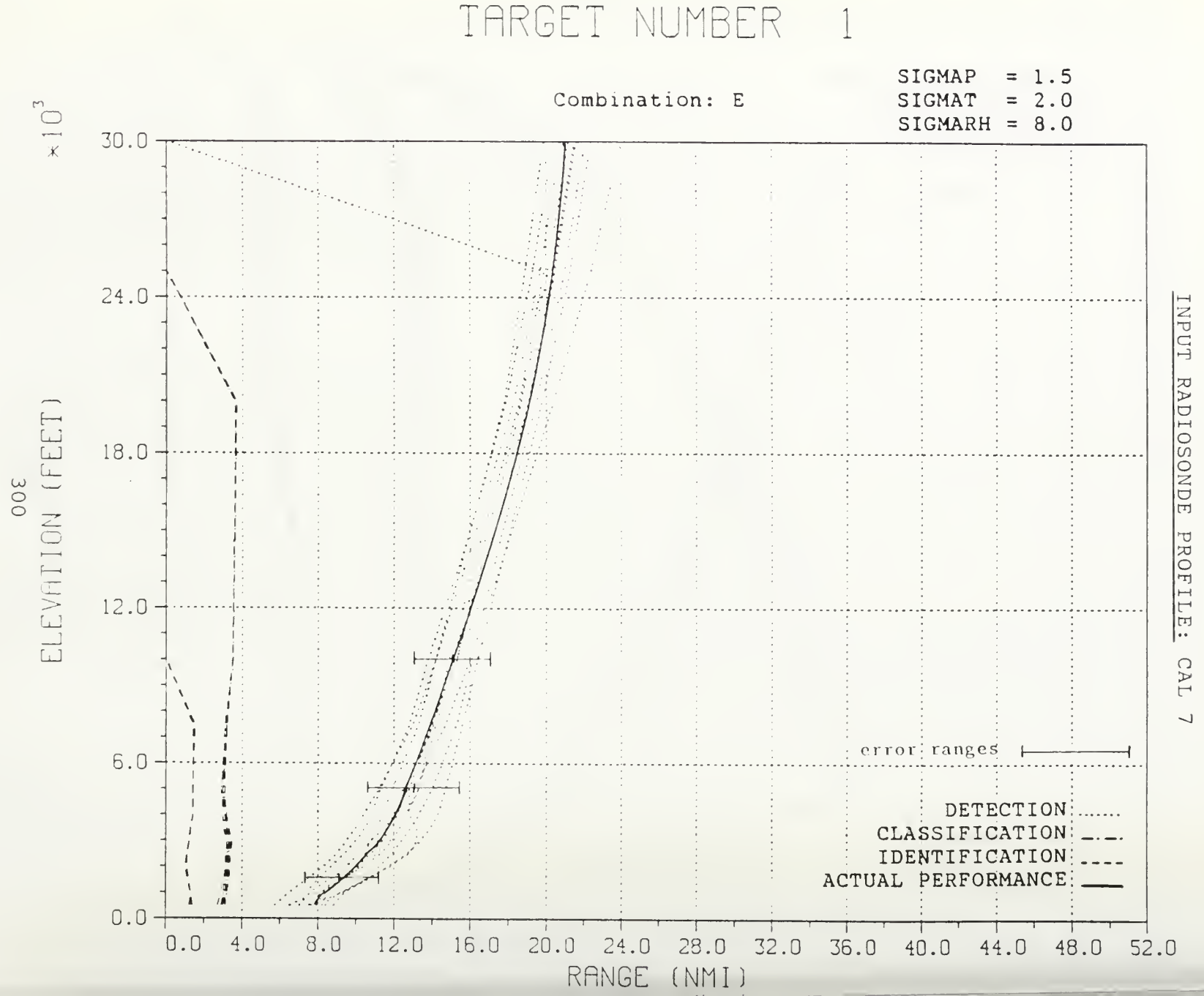


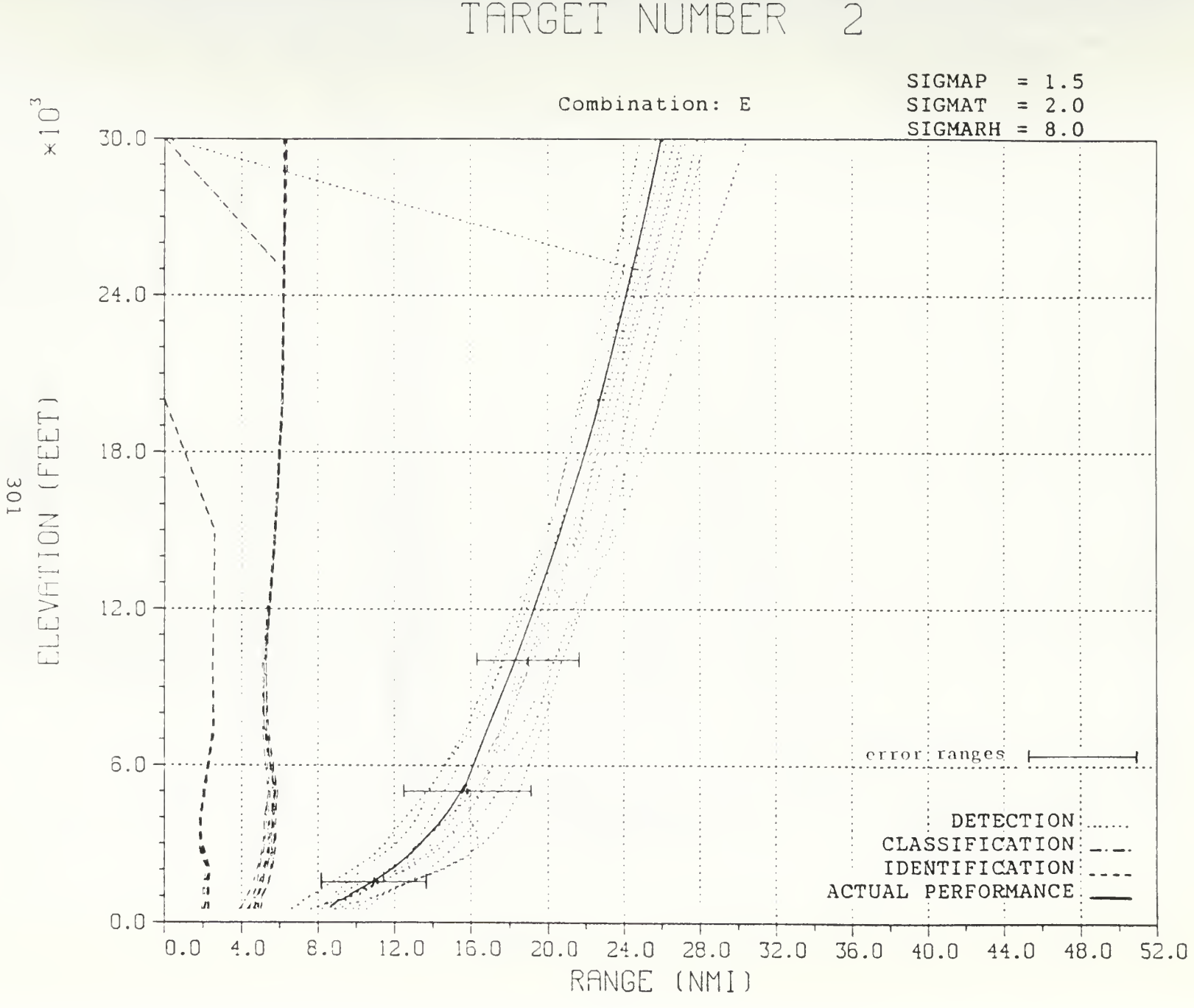

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._.
IDENTIFICATION ____
ACTUAL PERFORMANCE ——
296


TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
297

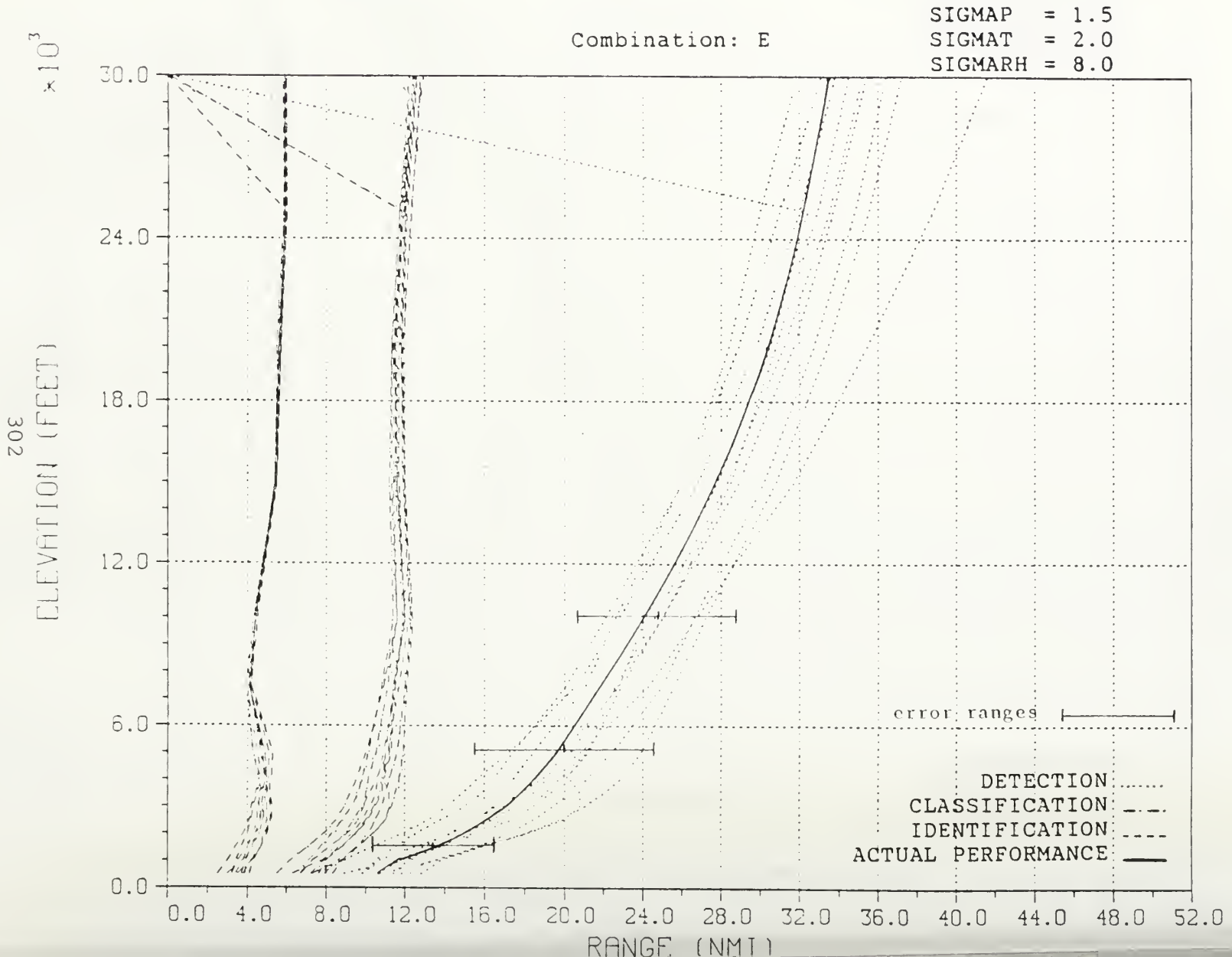

TARGET NUMBER 3
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
Combination: D
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
298

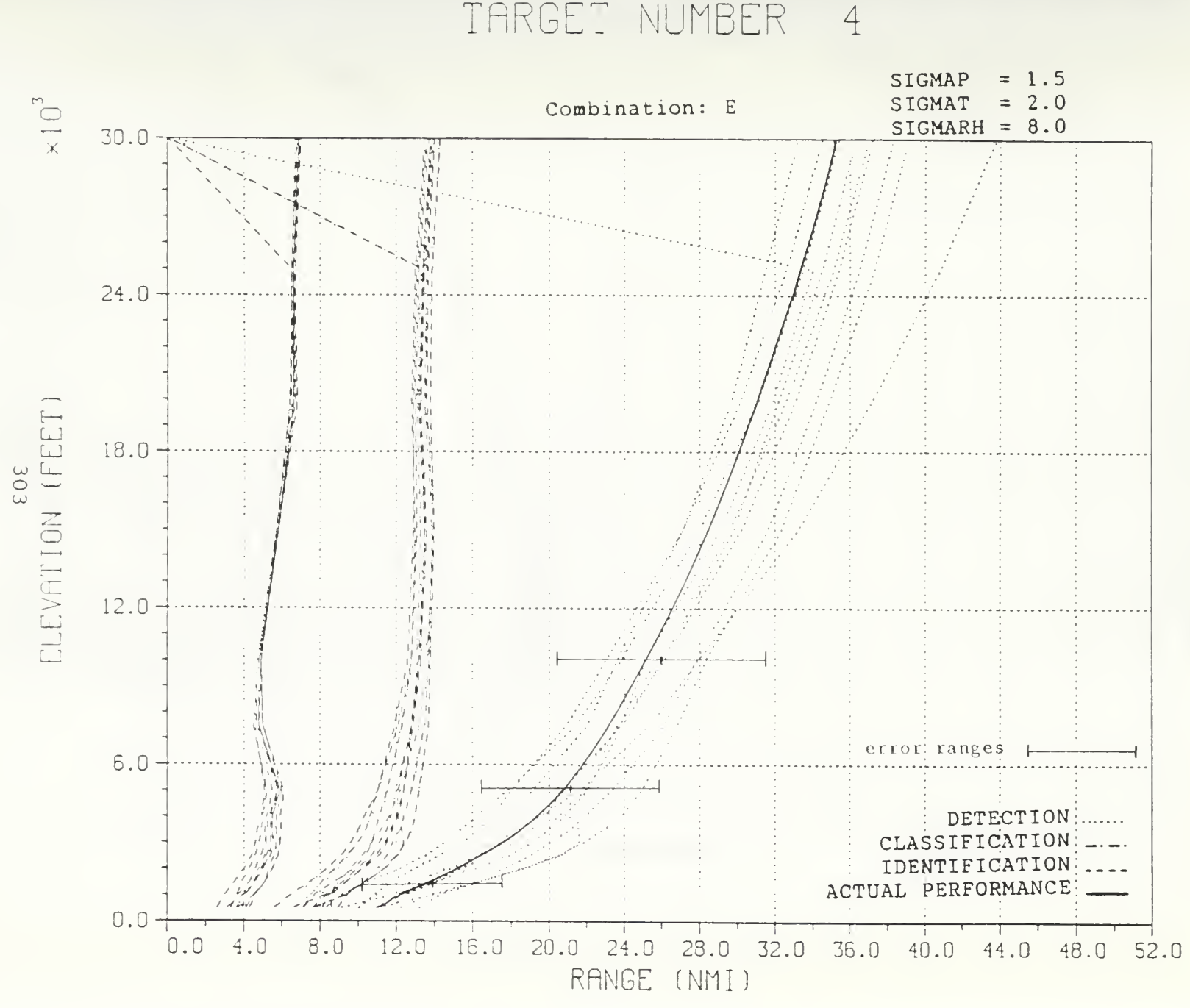

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
299

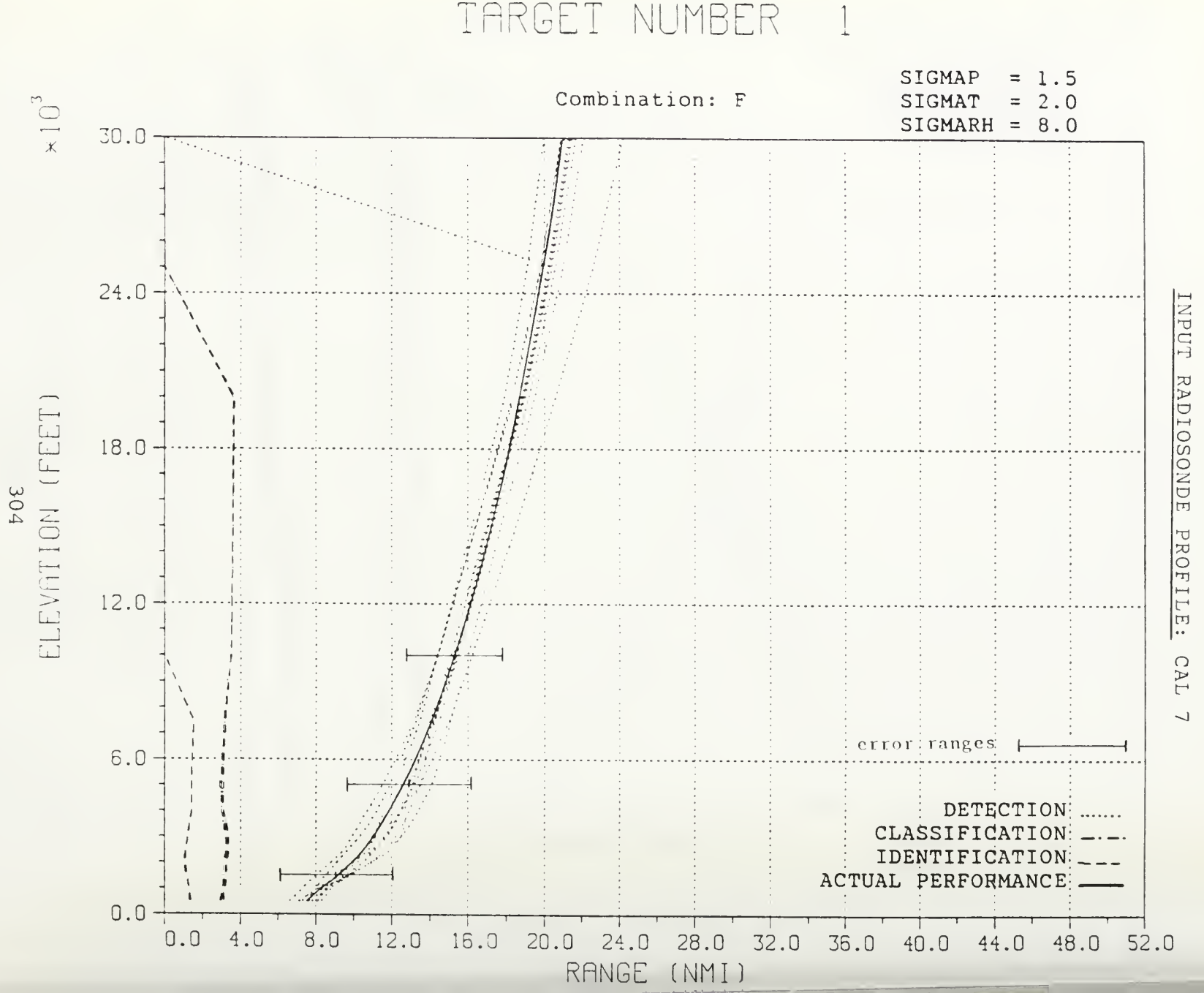

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
ELEVATION (FEET)
300
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

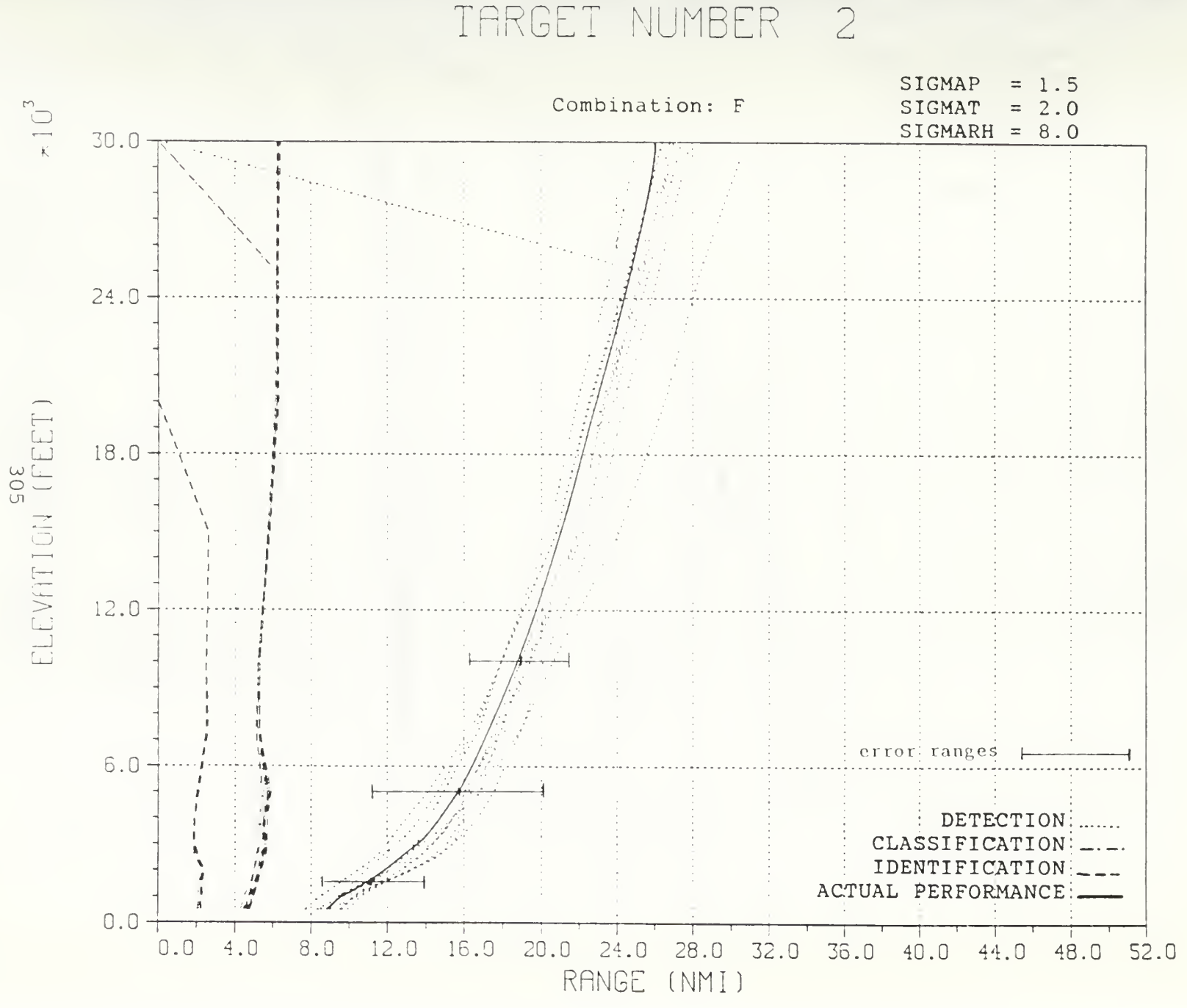

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 3

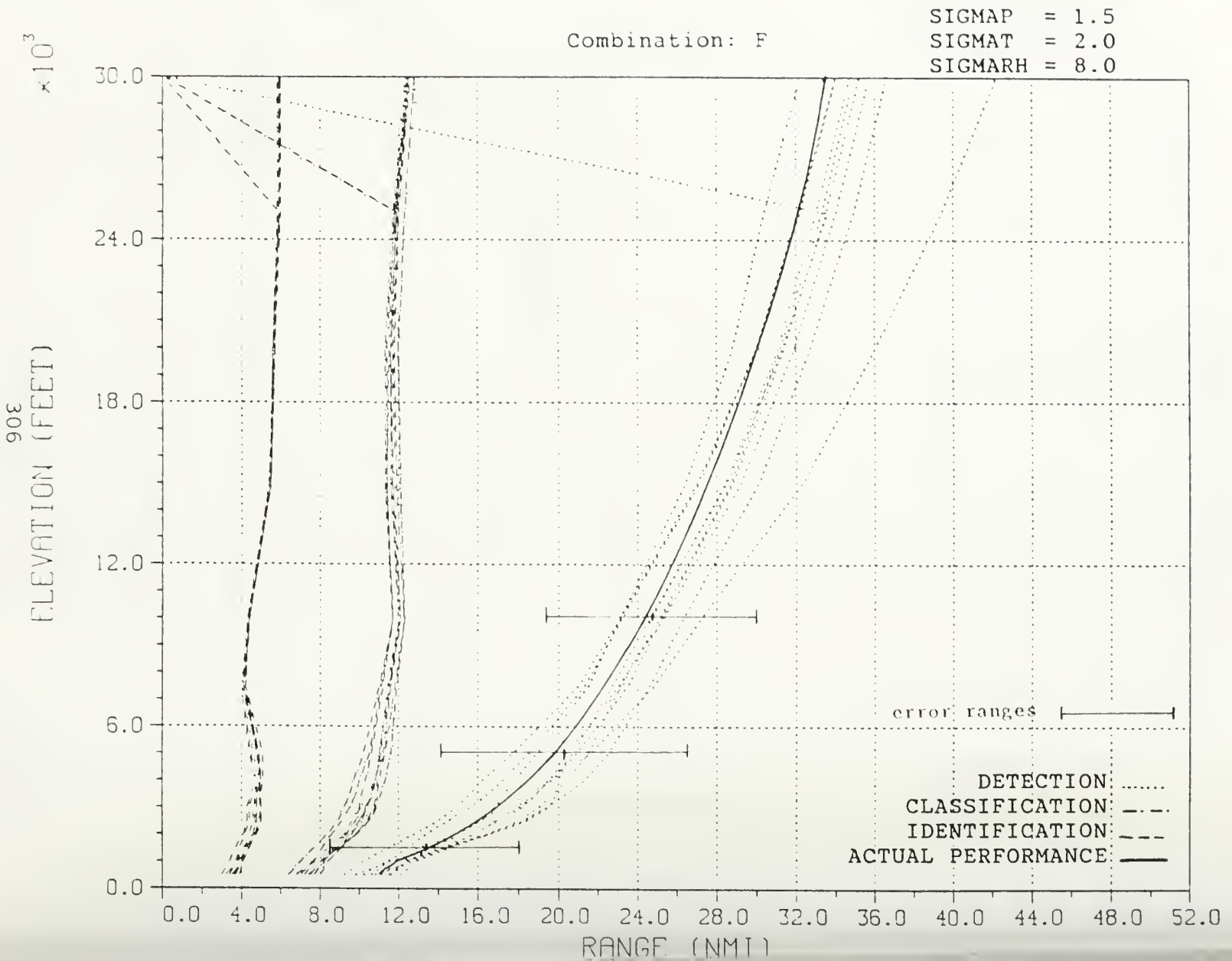



TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

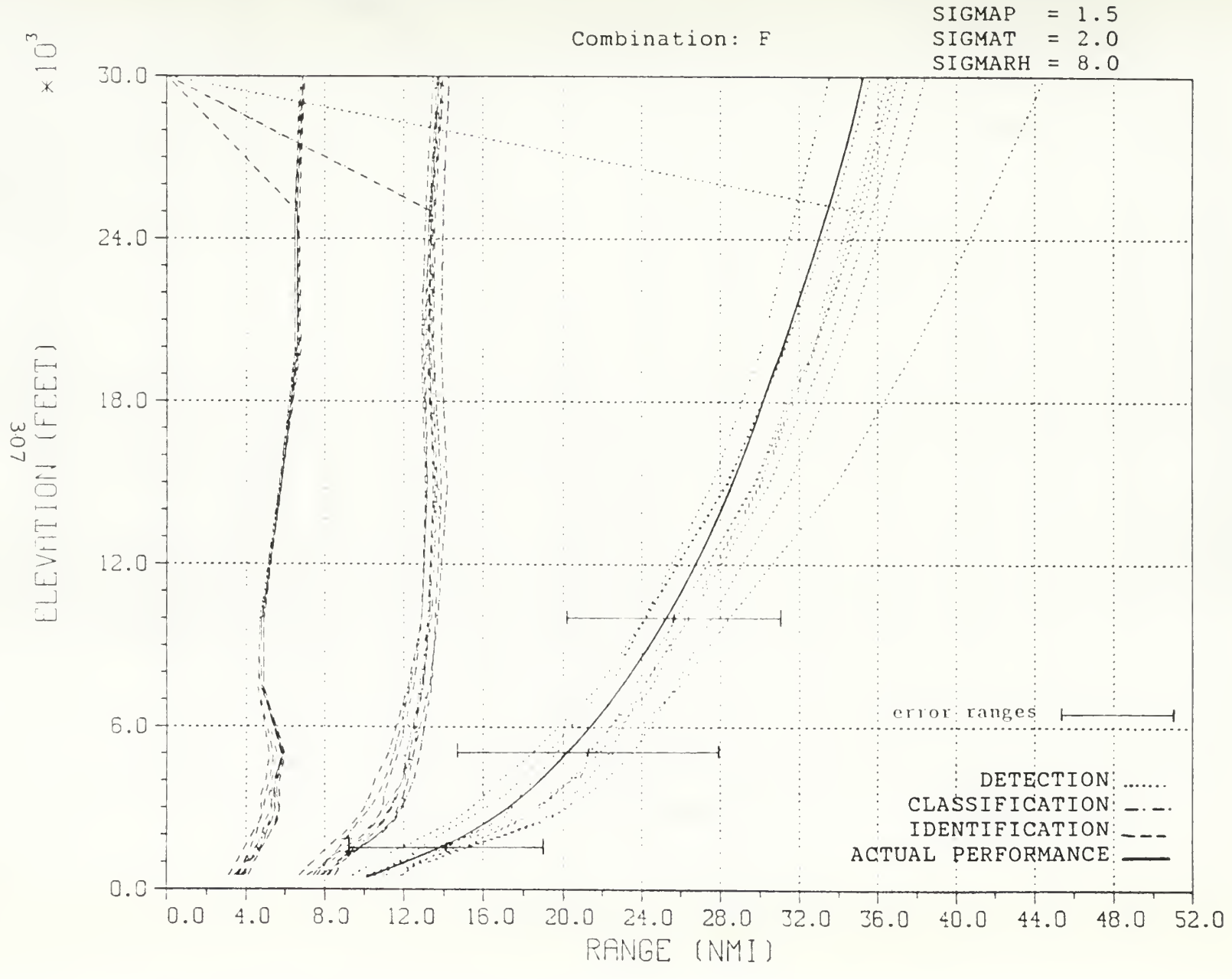

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._._
IDENTIFICATION _ _ _
ACTUAL PERFORMANCE ——

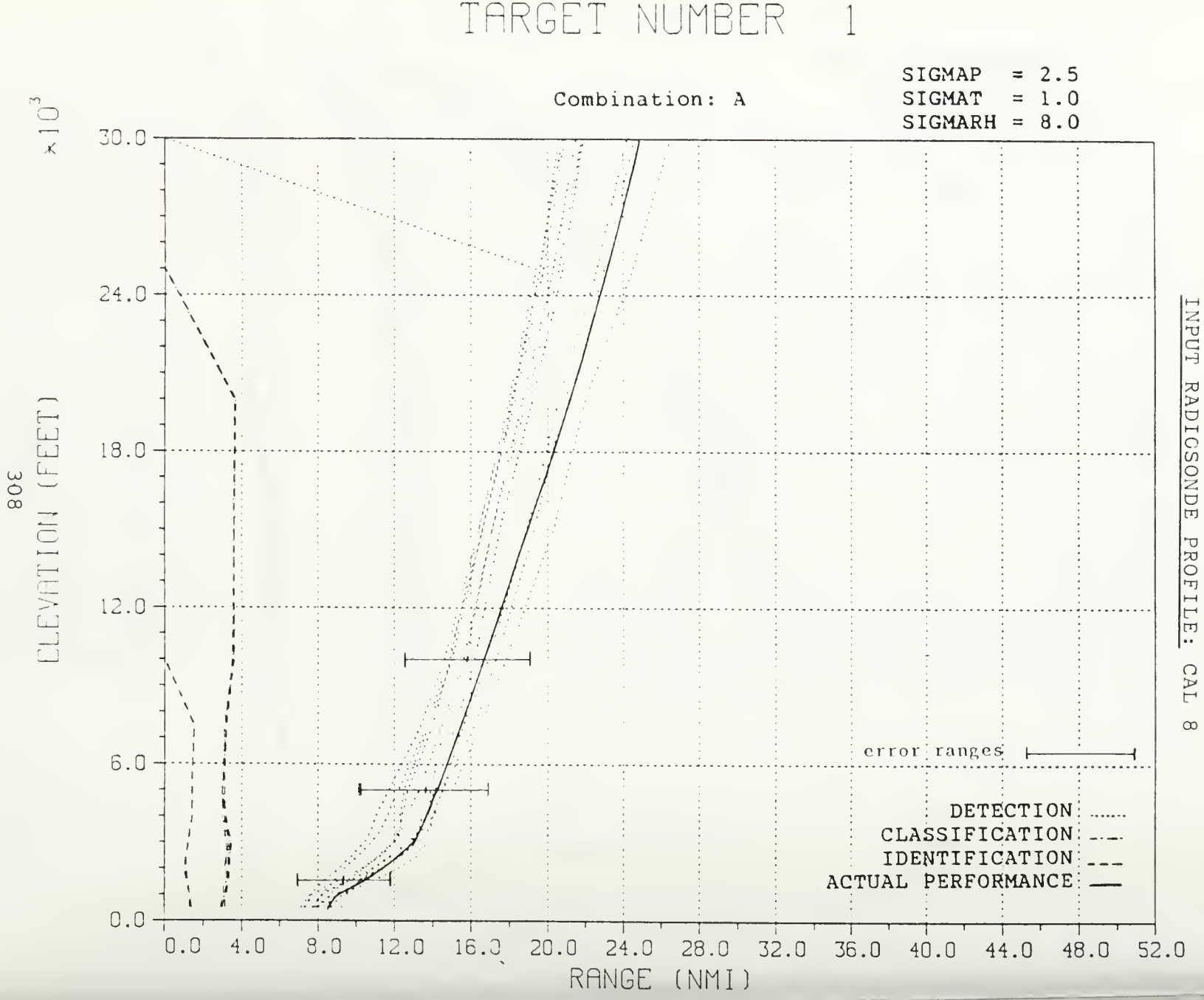

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
305
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

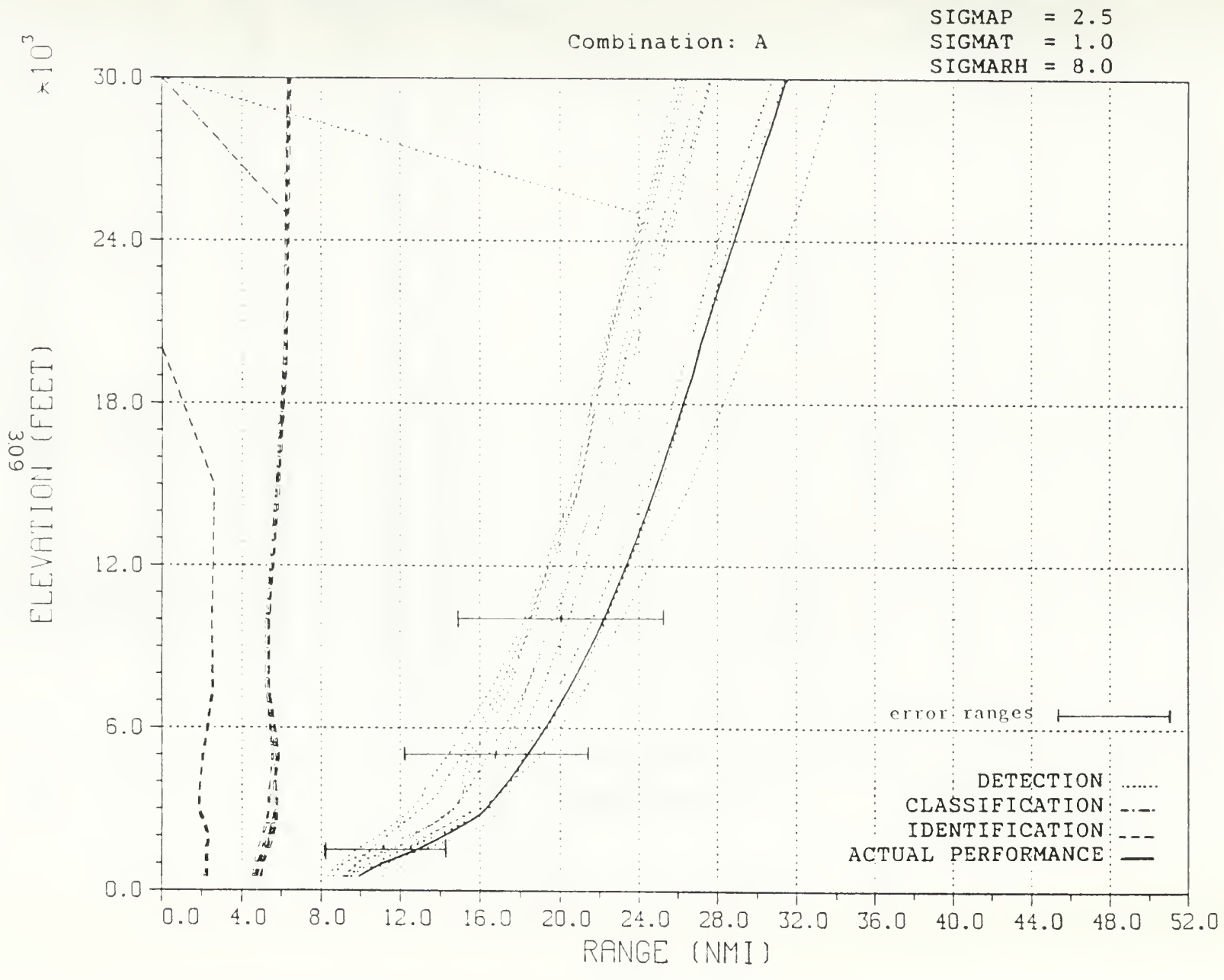
TARGET NUMBER 3



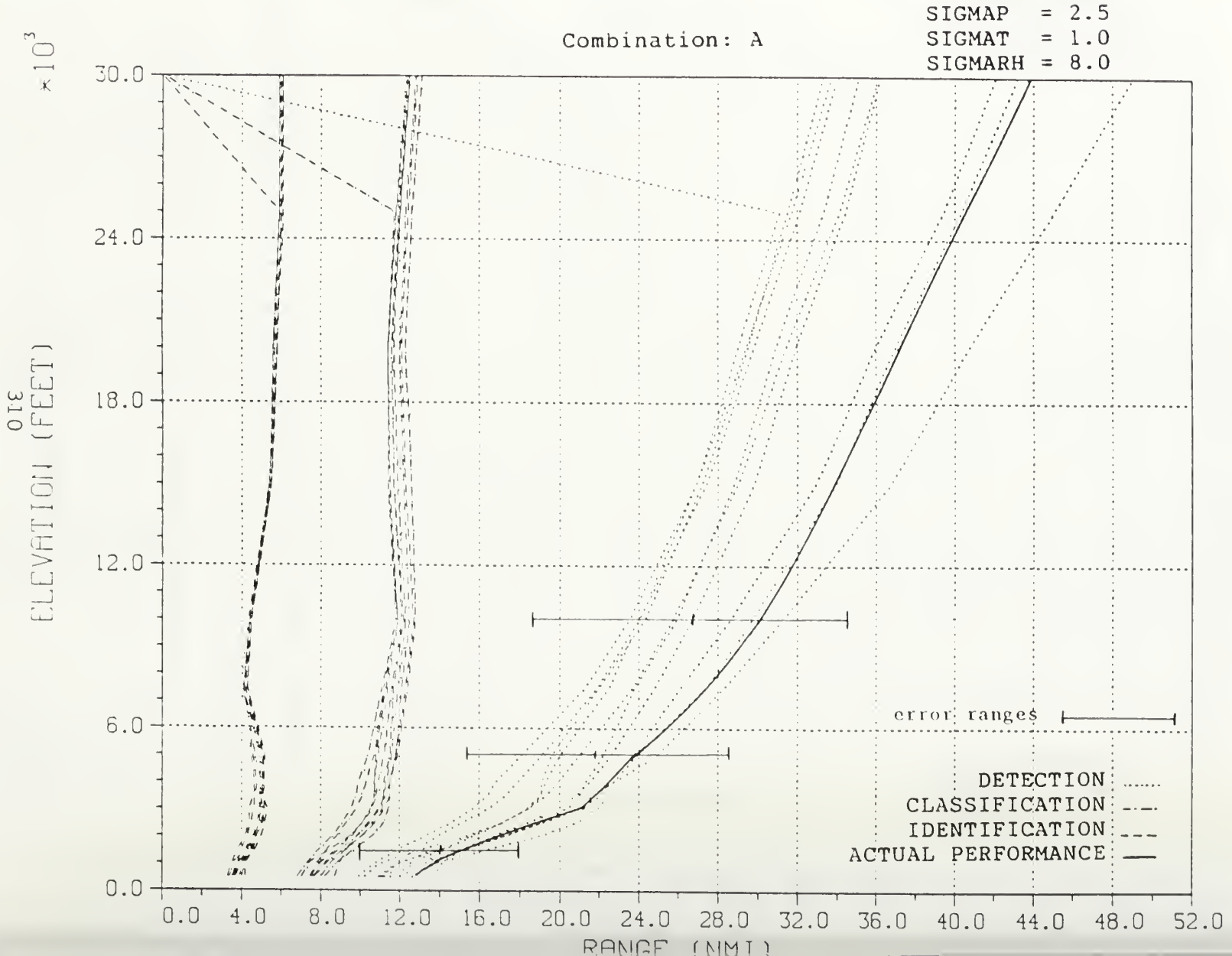
TARGET NUMBER 4



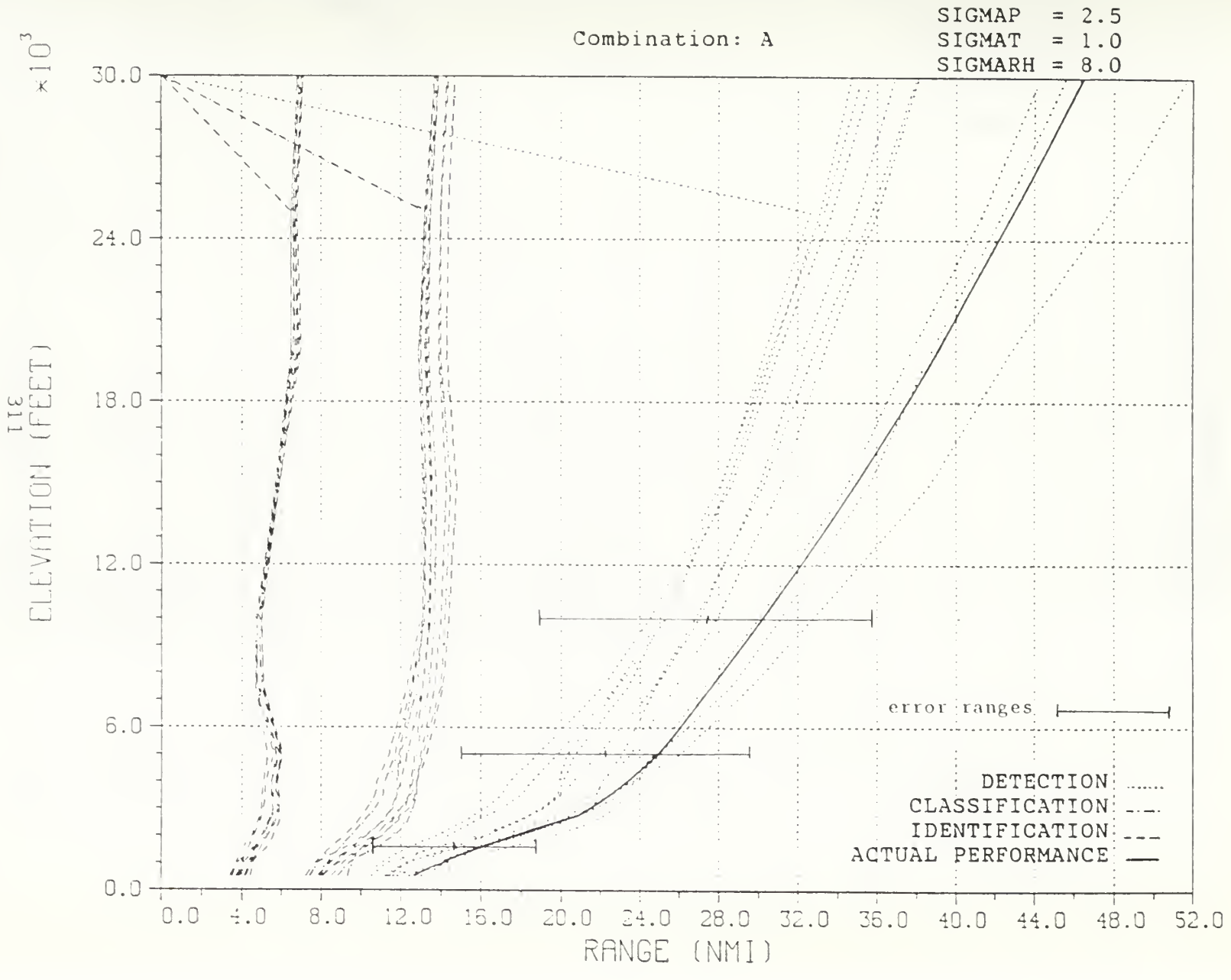

TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 8

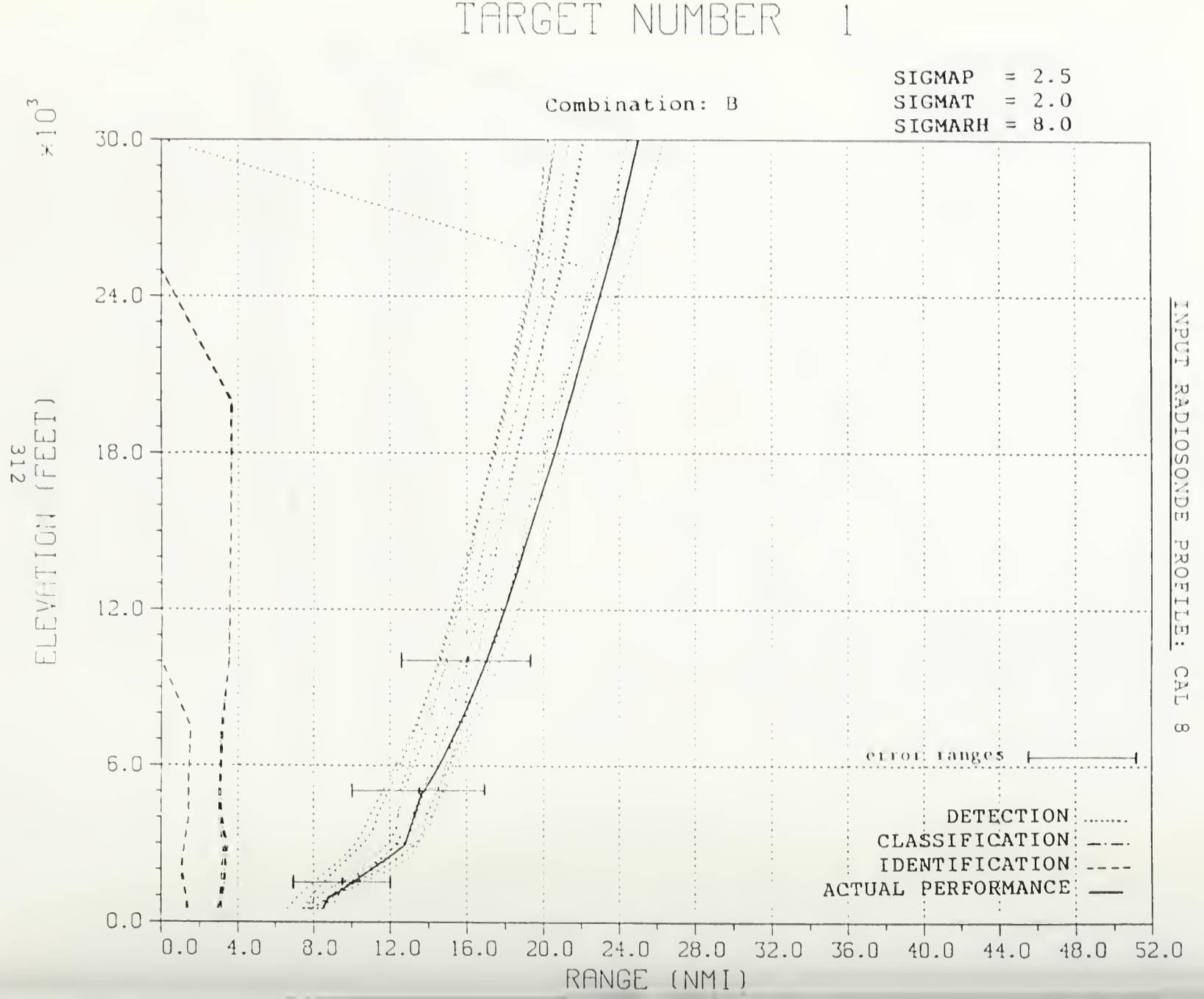

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) ×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

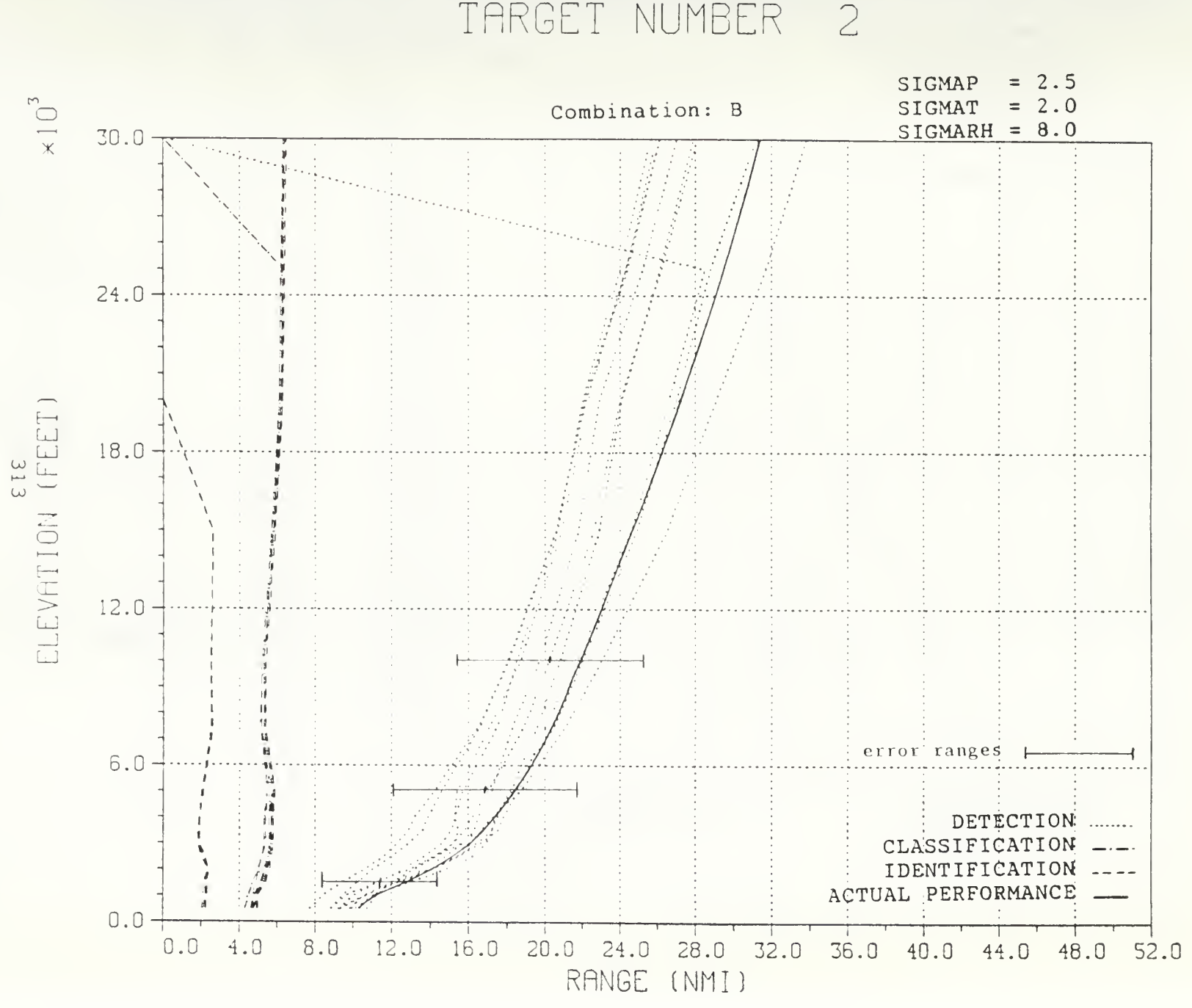
TARGET NUMBER 3



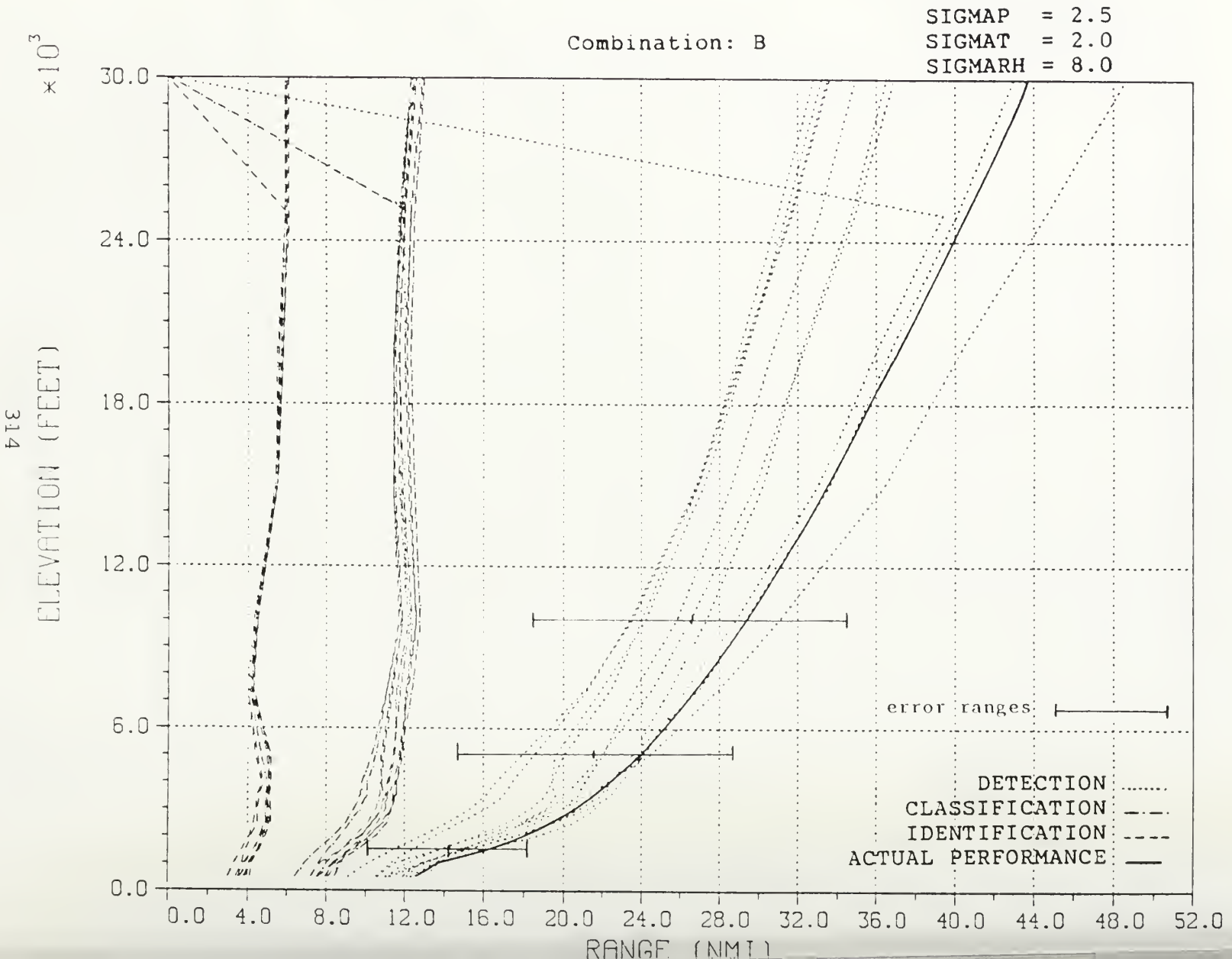
TARGET NUMBER 4

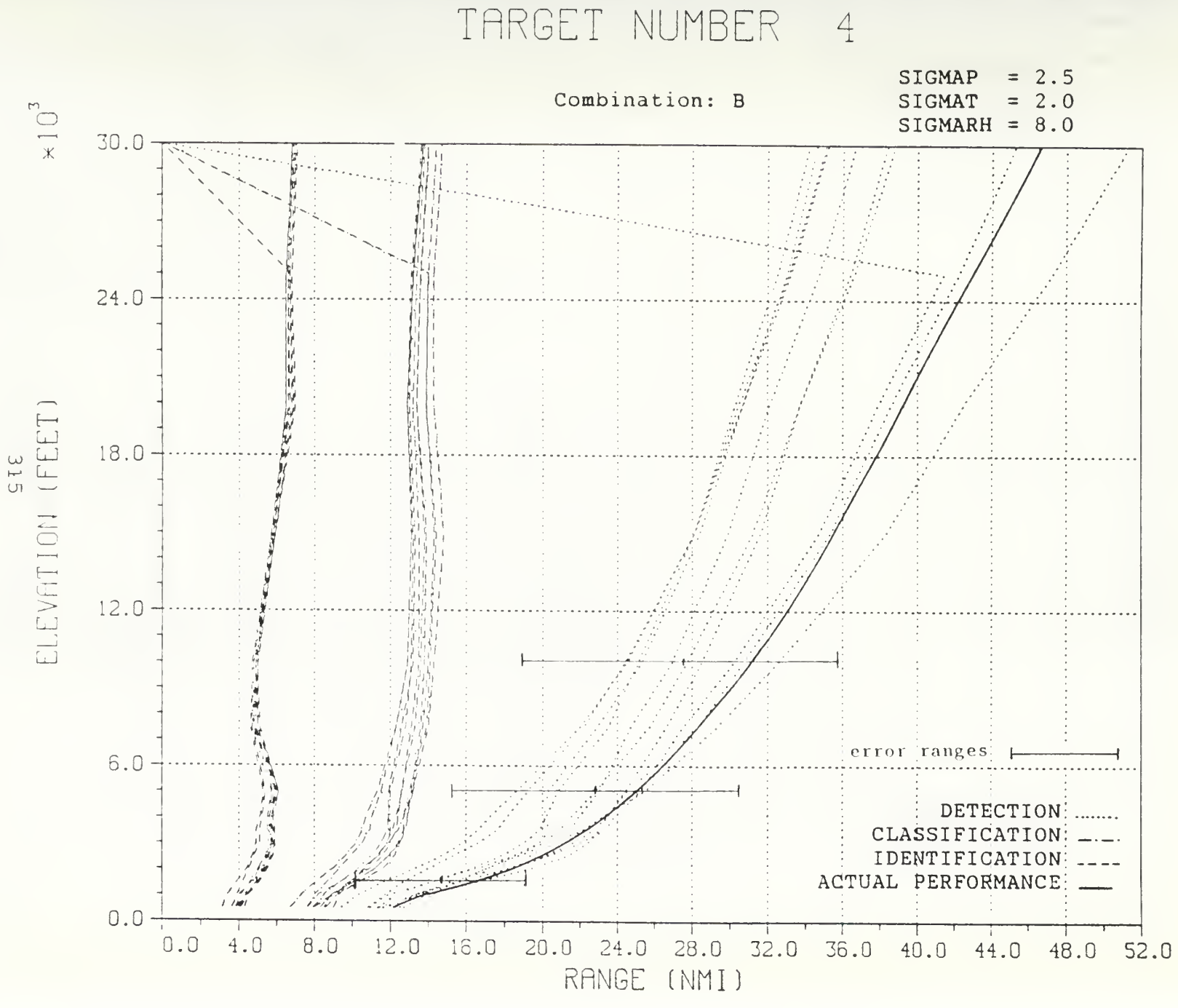


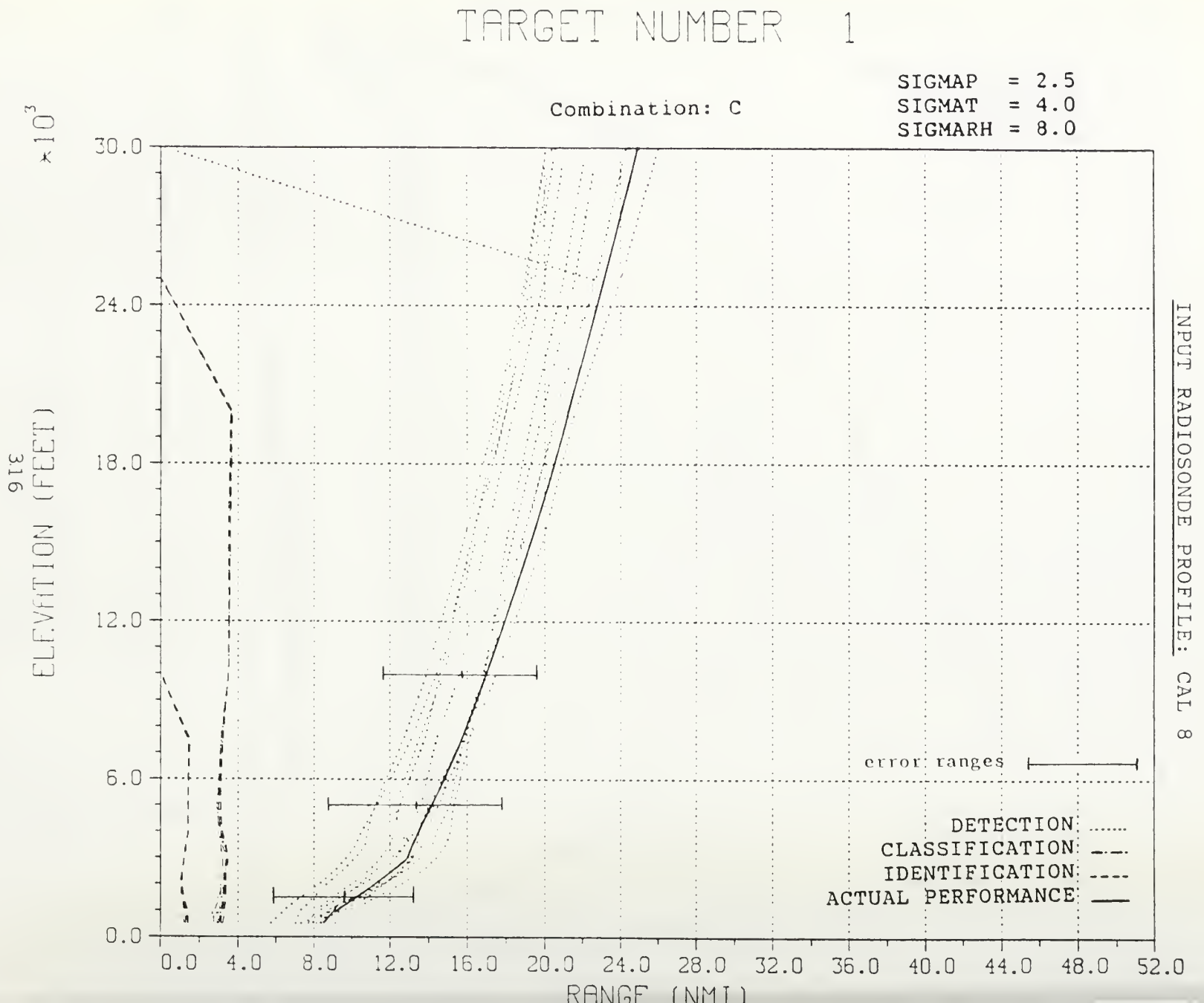

TARGET NUMBER 1
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
Combination: B
ELEVATION (FEET)
×10³
312
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 8

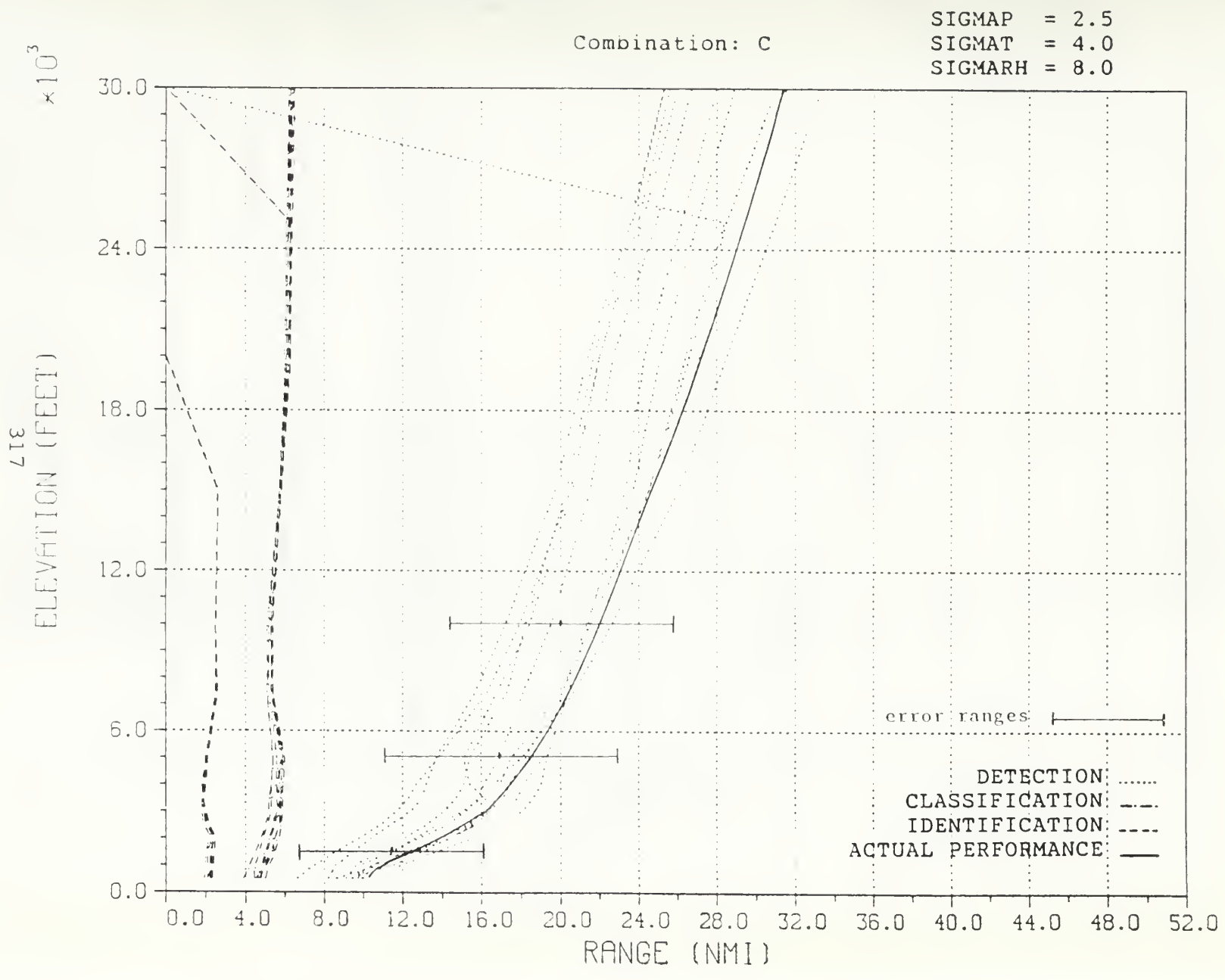

TARGET NUMBER 2
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
Combination: B
×10³
30.0
24.0
18.0
12.0
6.0
0.0
ELEVATION (FEET)
313
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 3

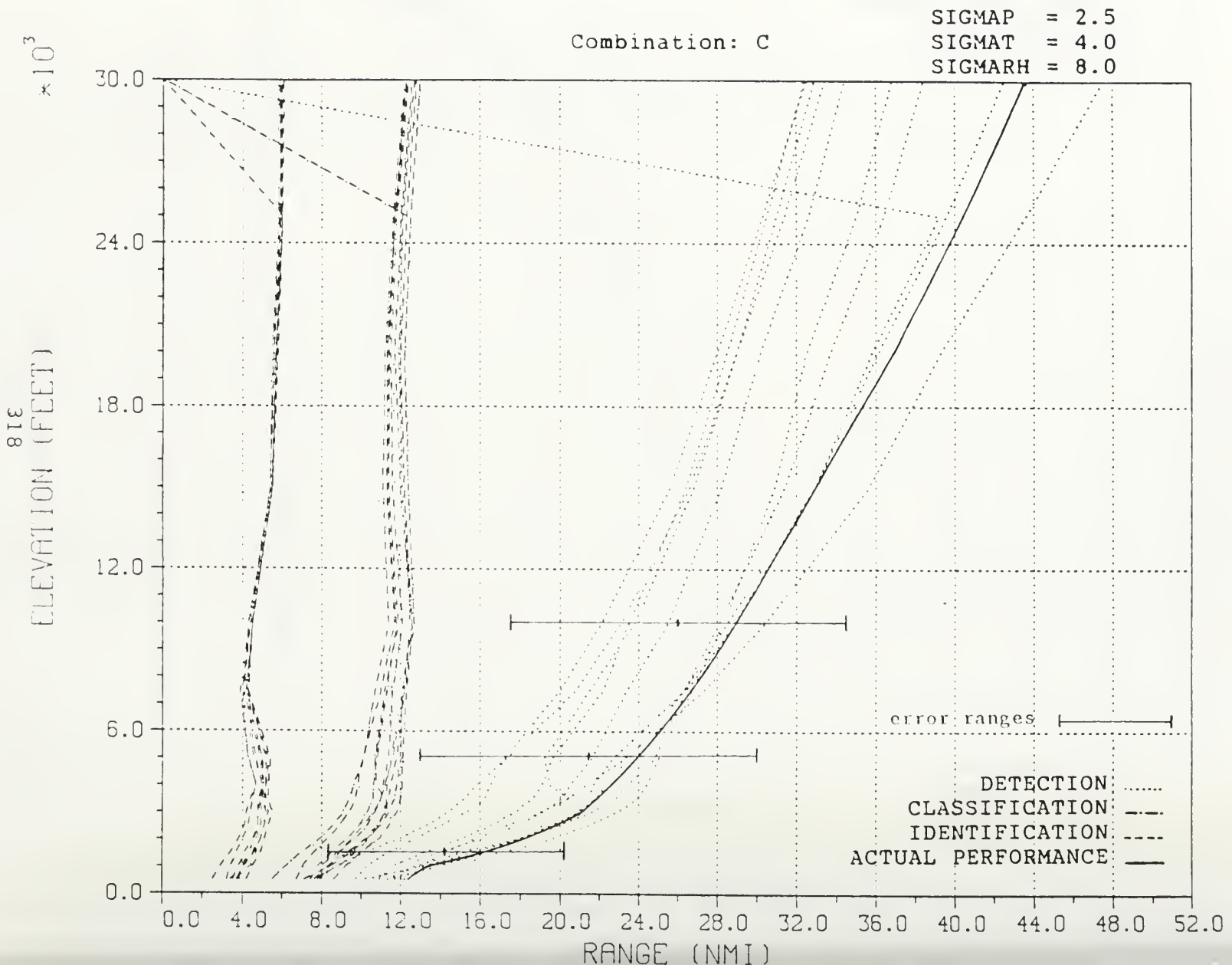



TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
315

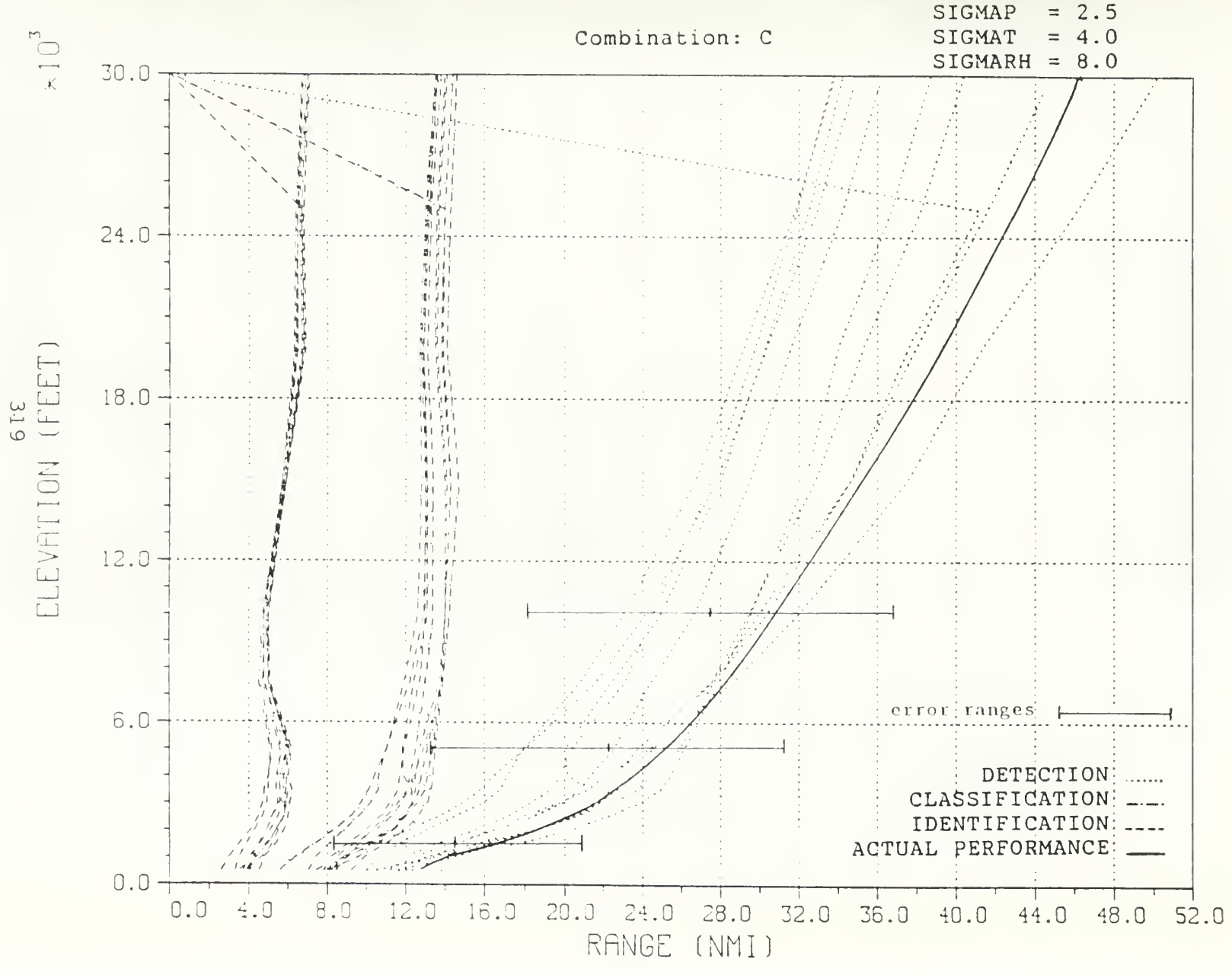

TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 8
316

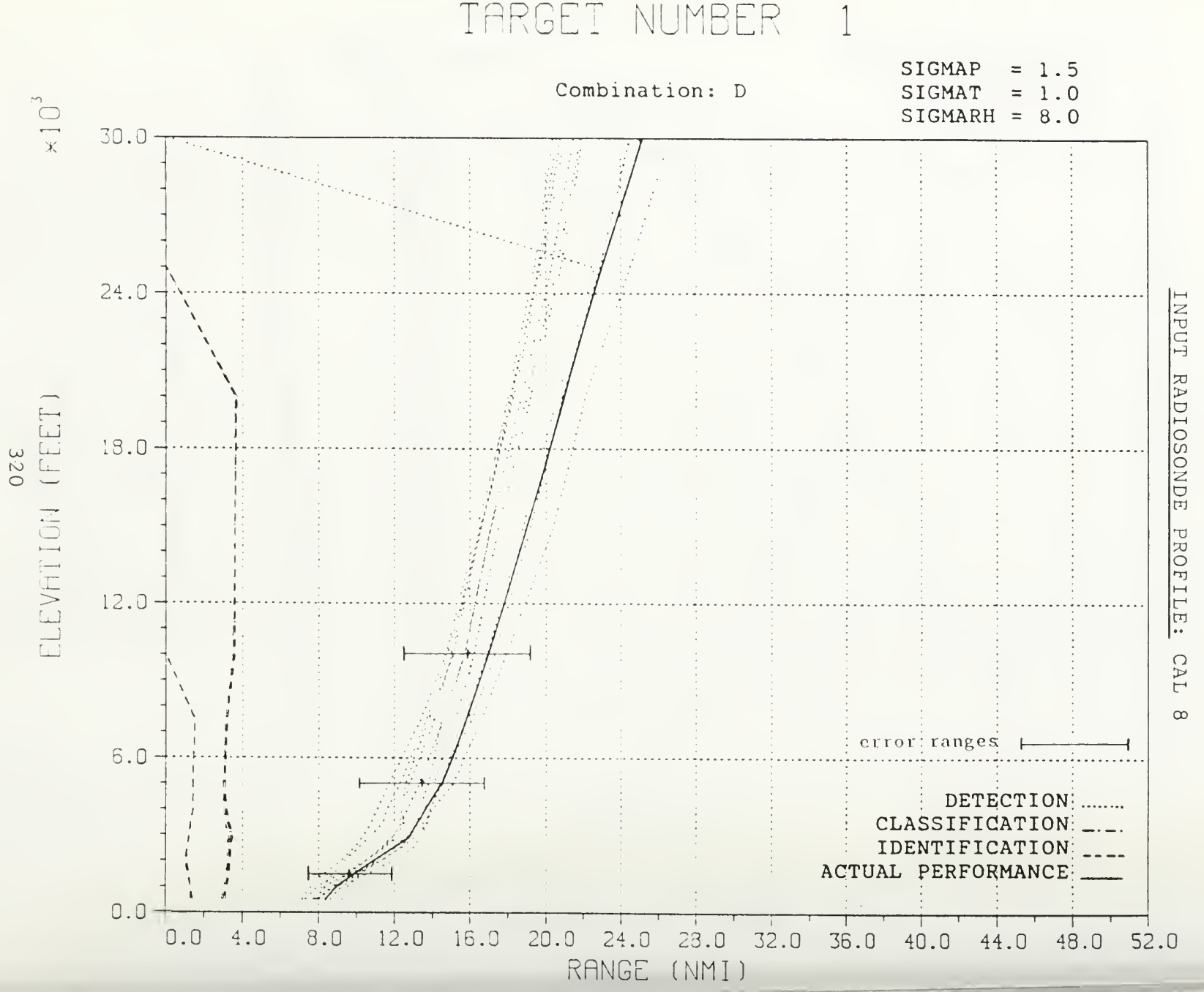

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

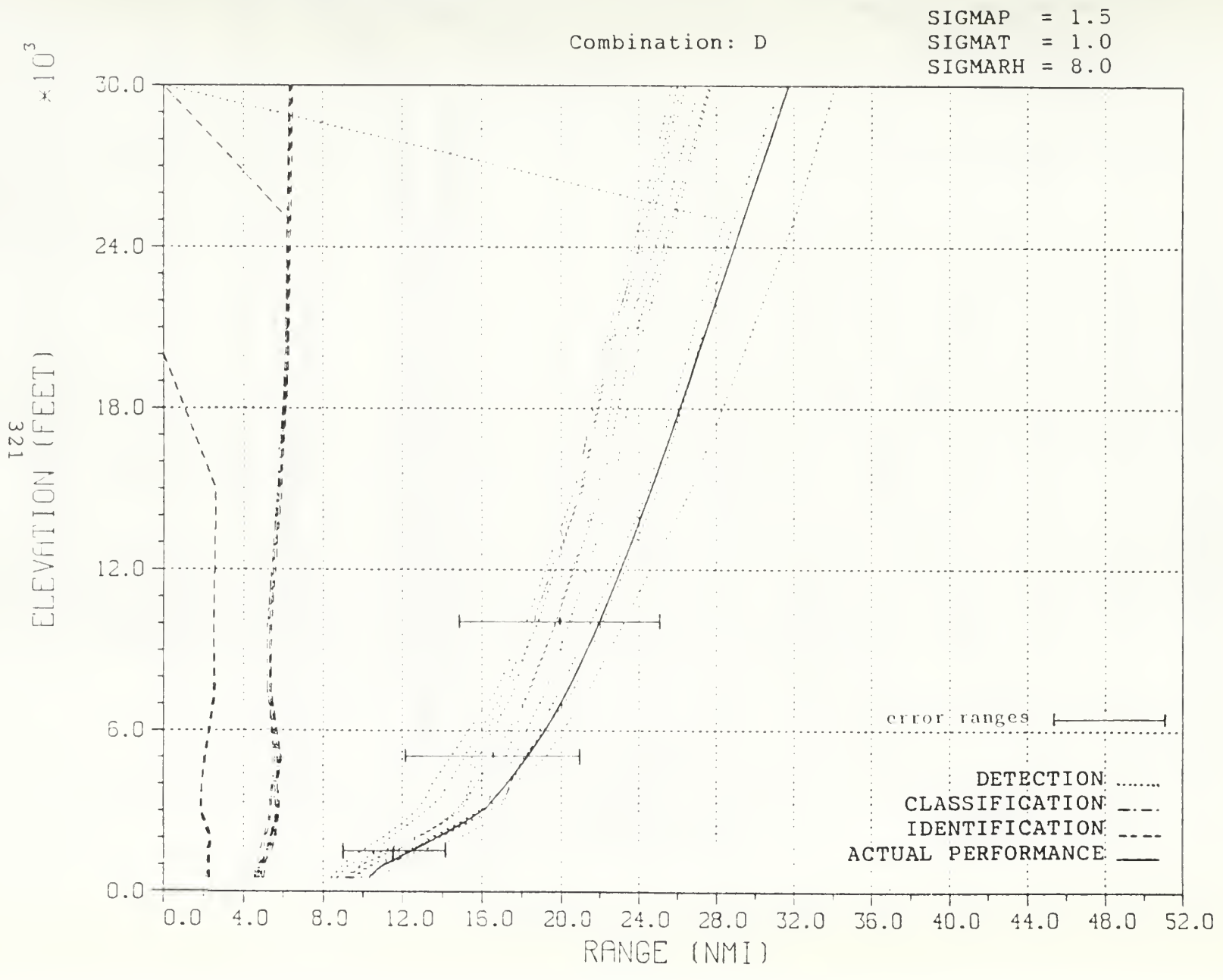
TARGET NUMBER 3

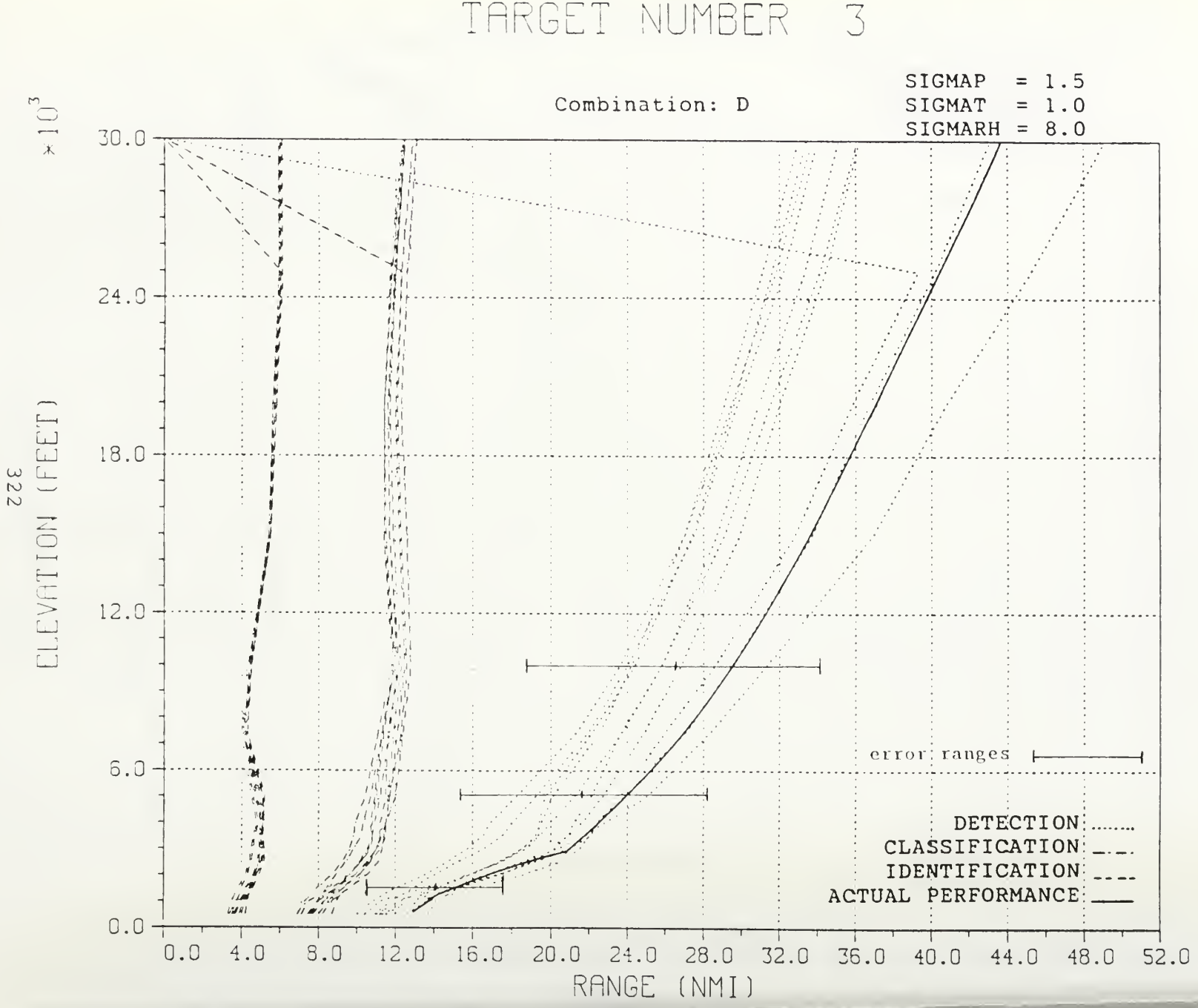


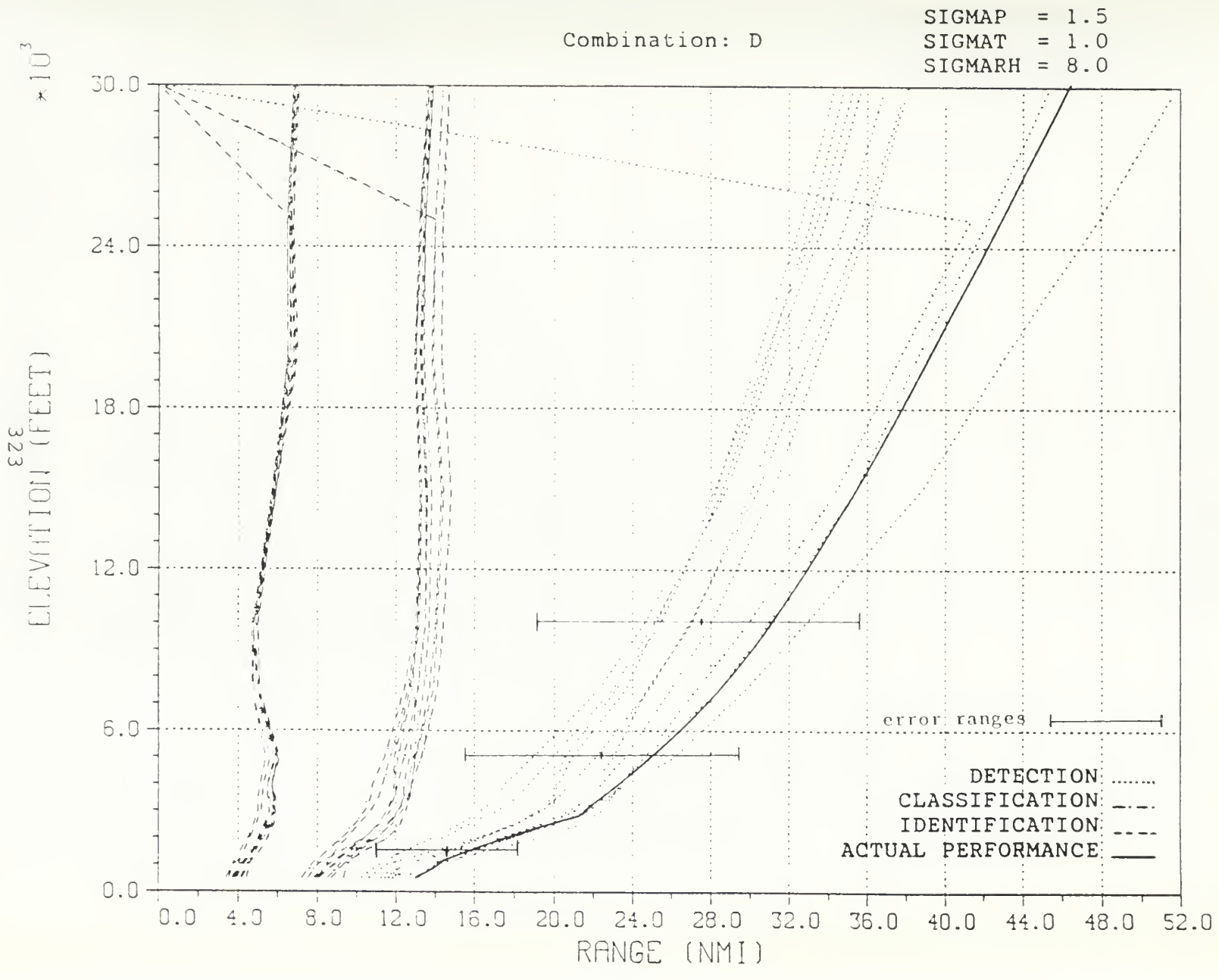
TARGET NUMBER 4

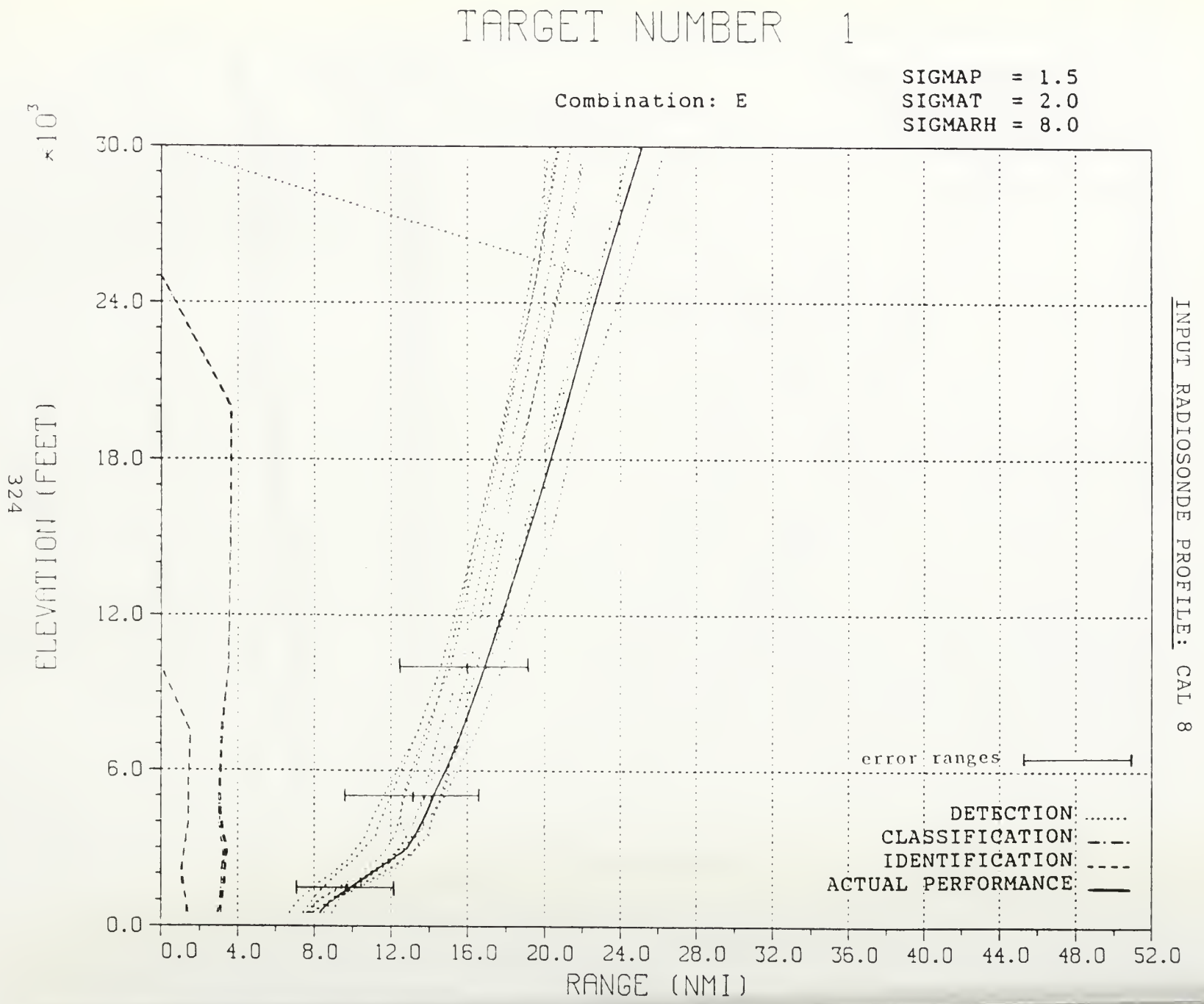


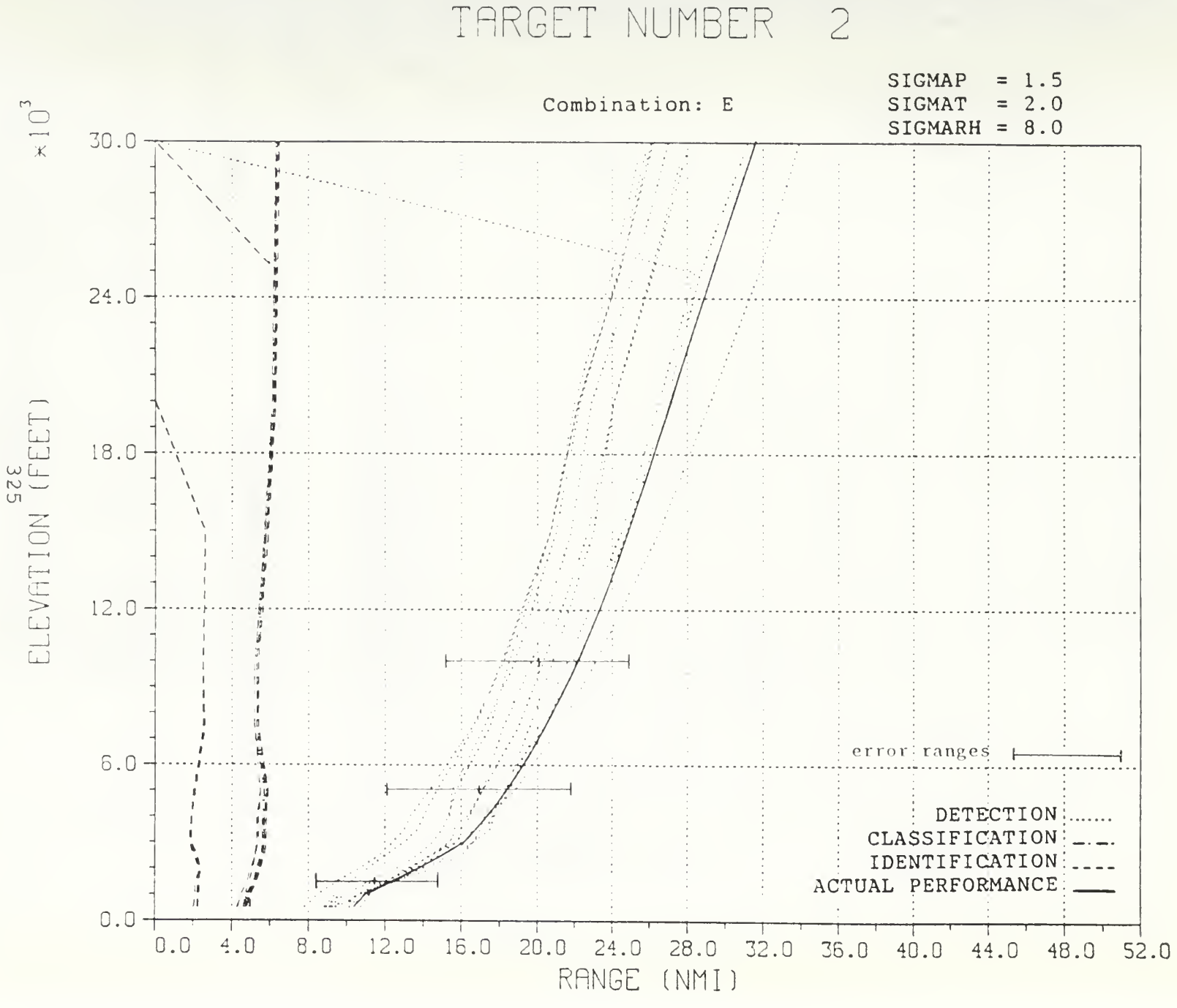

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION _._.
IDENTIFICATION ----
ACTUAL PERFORMANCE ——
INPUT RADIOSONDE PROFILE: CAL 8

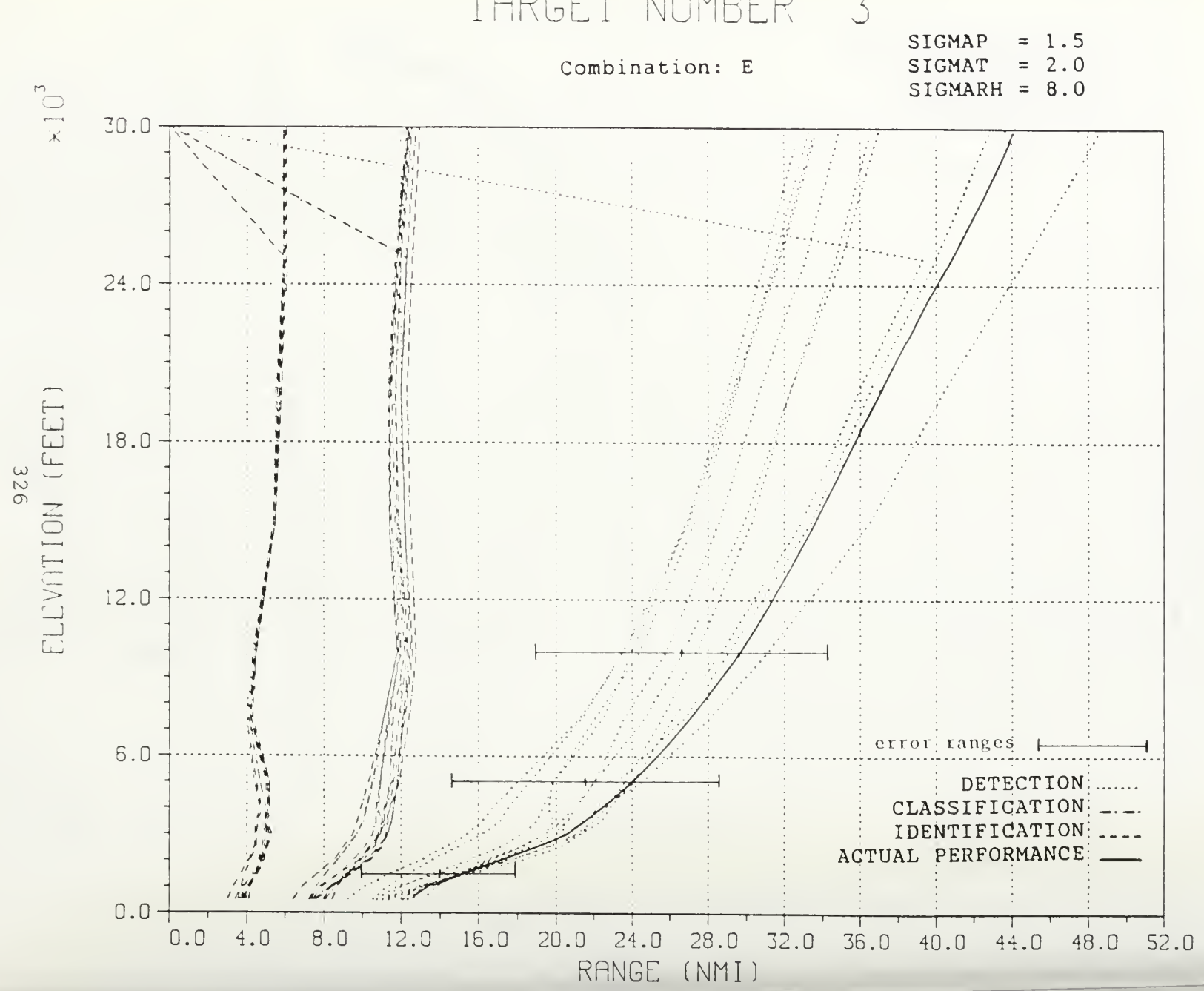

TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

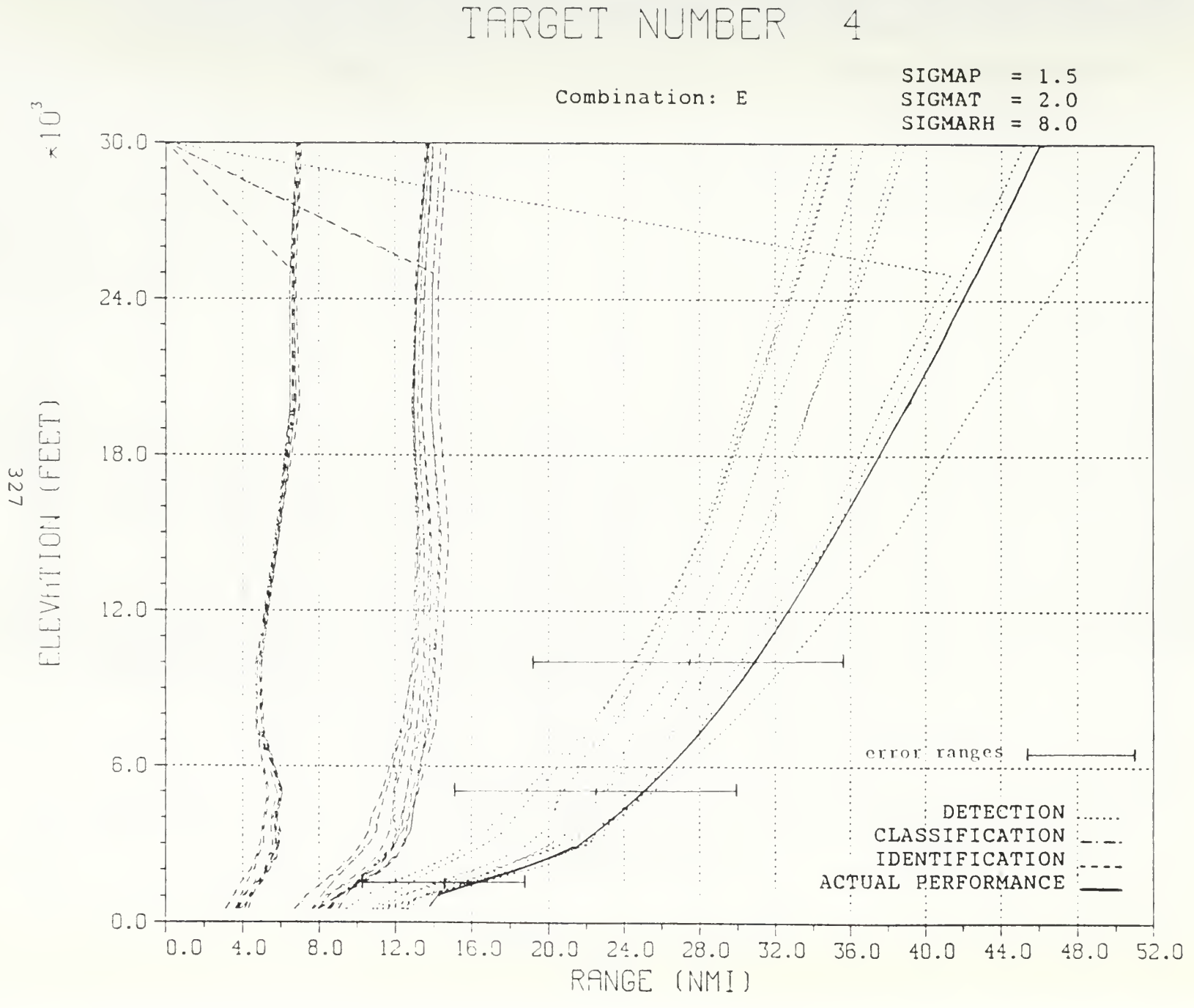

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

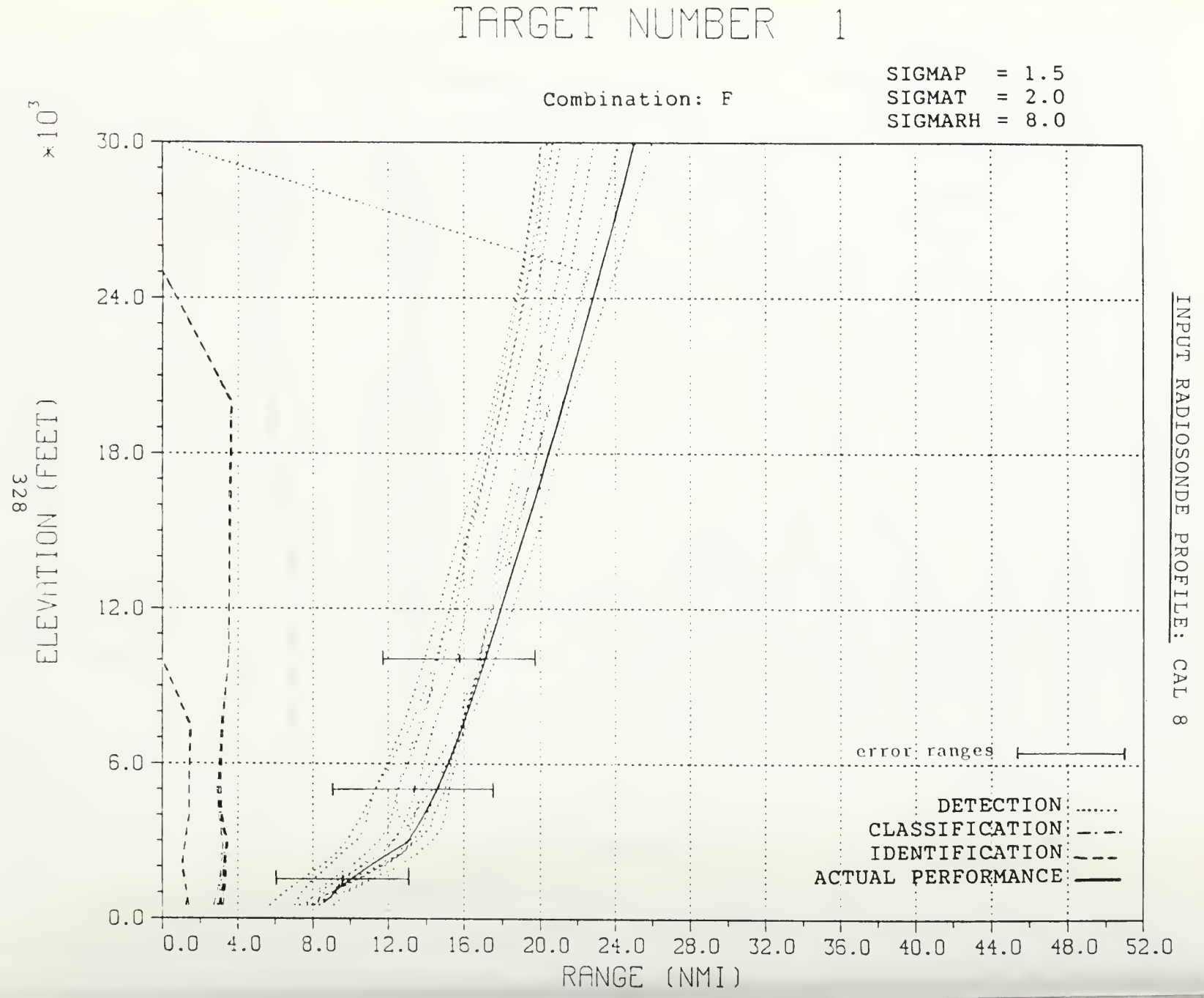

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET) x10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

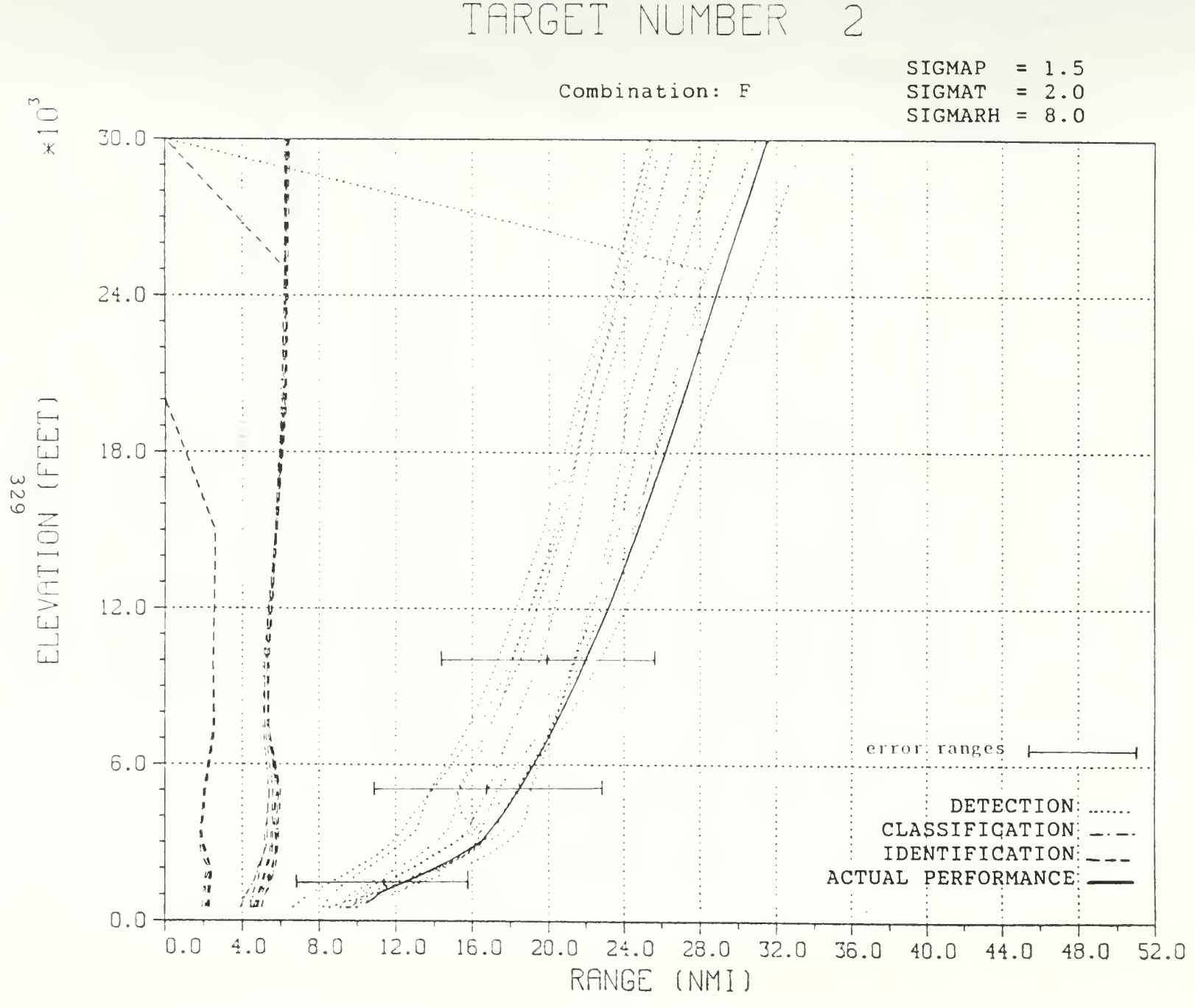

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 8

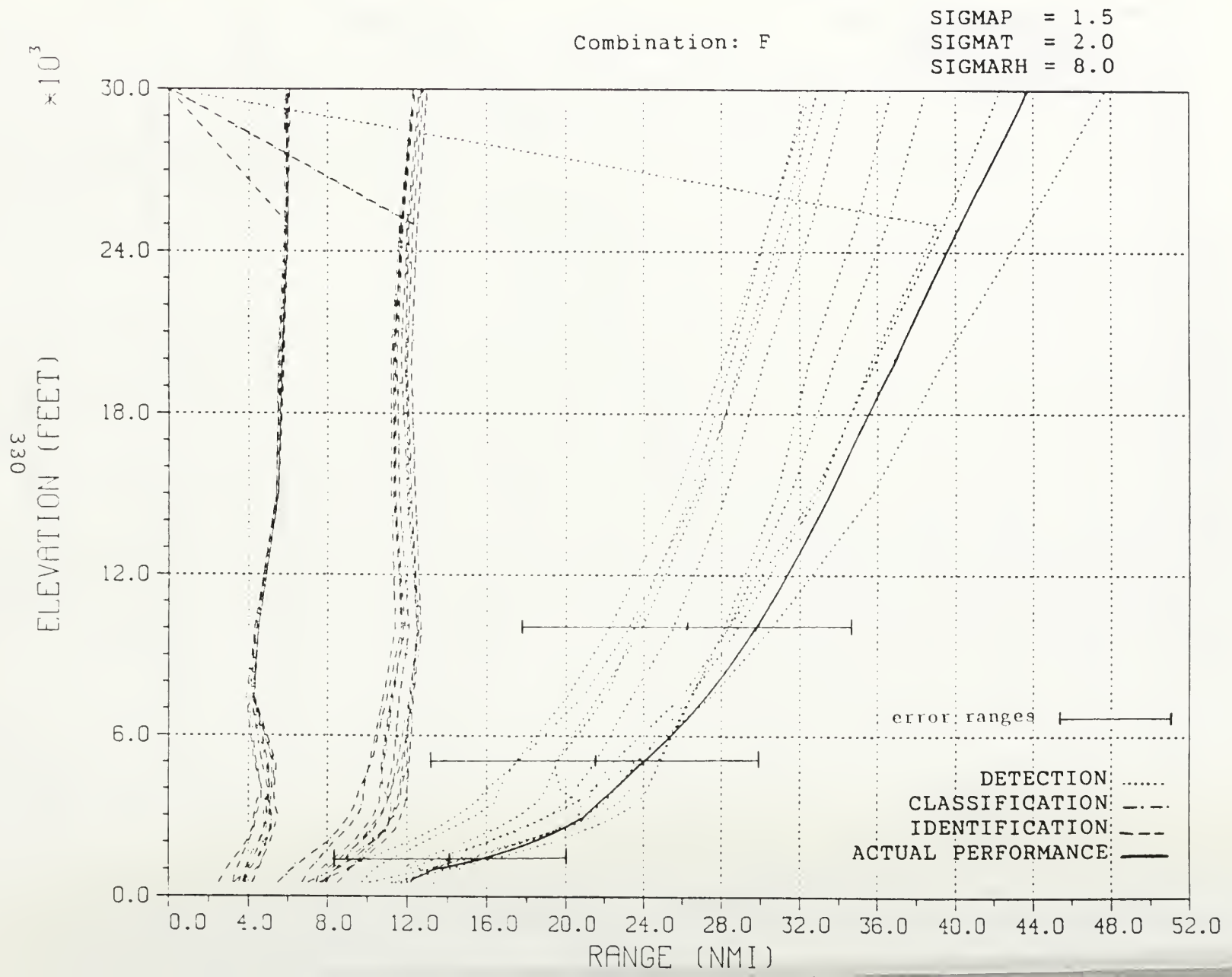

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
325

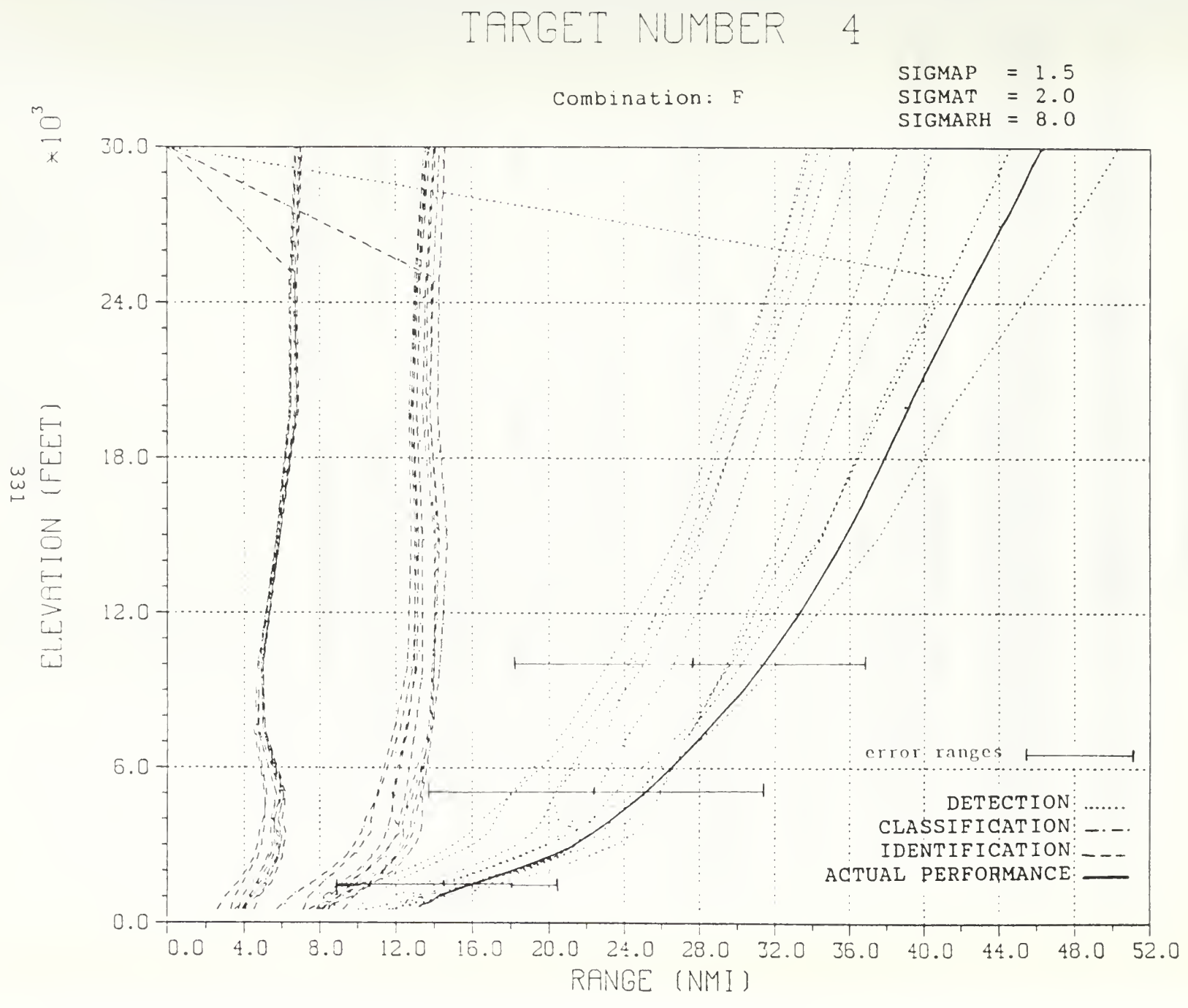

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
INPUT RADIOSONDE PROFILE: CAL 8


TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
331
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION .....
CLASSIFICATION -.-.-
IDENTIFICATION ---
ACTUAL PERFORMANCE ——

LIST OF REFERENCES

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Thesis
R2546 Reategui
c.1 The effect of random variations of radiosonde data on the predicted FLIR performance calculated by the program UFLR.

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